

J:\20140588\Drawg\04Sheets\Private Site Improvement Plan\20140588-1 Title Sheet.dwg Last Saved By: jpeltier, 3/5/2015 8:13 AM Last Printed By: Peltier, James, 3/5/2015 8:46 AM (No Xrefs)

14. All trenches within public right-of-way shall be backfilled according to the approved construction drawings or securely plated during nonworking hours. Trenches outside these areas shall be backfilled or shall be protected by approved temporary fencing or barricades during nonworking hours. Clean-up shall follow closely behind the trenching operation.
19. All trees within the construction area not specifically designated for removal shall be preserved, whether shown or not shown on the approved construction drawings. Trees to be preserved shall be protected with high visibility plastic placed a minimum 15 feet from the tree trunk. Trees 6'-inches or greater at DBH (Diameter Breast Height) must be protected with fencing placed at the critical root zone or 15 feet, whichever is greater. Trees not indicated on the approved construction drawings for removal may not be removed without prior approval of the Division of Engineering.
20. Conduit must be directionally bored across streets instead of open cut, unless specifically approved by the City Engineer. Use of pneumatic air ram devices is not permitted. Permits to construct in the right-of-way of existing streets must be obtained from the City of Dublin Division of Engineering before commencing construction. Should open cutting of existing pavement be permitted, Controlled Density Backfill (Type II) shall be used in place of compacted granular backfill, according to Item 636 of the Standard Specifications.
21. The Contractor shall be responsible for the condition of trenches within the right-of-way and public easements for a period of one year from the final acceptance of the work, and shall make any necessary repairs at no cost to the City.
22. Pavements shall be cut in neat, straight lines the full depth of the existing pavement, or as required by the City Engineer. Pavement replacement shall be conducted according to City of Columbus Standard Drawing 1441 and applicable City of Dublin standard drawings. The replacement of driveways, handicapped ramps, sidewalks, bike paths, parking lot pavement, etc. shall be provided according to the approved construction drawings and City of Dublin standard construction drawings.
23. Tree trimming within the construction zone is to be completed by a certified Arborist. At the completion of the project the Arborist is to return and trim any broken branches as needed.
24. Any modification to the work shown on drawings must be to be completed by a certified Arborist, City of Dublin.
25. All inlets shall be channelized.
26. Park areas shall be fine-graded and seeded with the following mixture:
Improved Kentucky Bluegrass, 40% of weight (2 varieties in equal parts)
Improved Perennial Ryegrass, 60% of weight (2 varieties in equal parts)
Germination Rate: 85%
Application Rate: 7 lbs per 1000 sq ft as directed by the Division of Parks & Recreation, City of Dublin, Ohio.
27. Traffic control and other regulatory signs shall be Type S with a square post anchor base installation and meet all requirements of ODOT TC-41.20 and applicable City of Dublin specifications.
28. Street signs shall meet all City of Dublin specifications with lettering colored in white displayed over a brown background. Sign tubing shall be brown in color and conform with the Type S, square post anchor base installation requirements of ODOT TC-41.20.

1. The following utilities are known to be located within the limits of this project:				
Columbia Gas of Ohio Roy Caldwell – Field Engineer 1600 Dublin Road Columbus, Ohio	43212	City of Dublin Division of Engineering Ken Richardson, P.E. 5800 Shier-Rings Road Dublin, Ohio 43016 (614) 410-4631	City of Columbus Division of Power and Water (Water) 910 Dublin Road, 2nd Floor Columbus, Ohio 43215 (614) 645-7677	Verizon Bill Mueller 550 Leuder Street Harrison, Ohio 43302 (740) 383-0527
American Electric Power Roy Sloneker 850 Tech Center Drive Columbus, Ohio 43230-6605 (614) 883-6829		Time Warner Cable Ray Maurer 3760 Interchange Road Columbus, Ohio 43204 (614) 481-5262	AT&T of Ohio Tom Zioemek 111 North 4th Street Columbus, Ohio 43215 (614) 223-7162	Wide Open West Jayne Novaria 3675 Corporate Drive Columbus, Ohio 43231 (614) 948-4653

Site plan for the proposed 100-unit multi-family development at the intersection of Bright Road and Emerald Parkway. The plan shows a large parking lot, a building footprint, and surrounding infrastructure including Emerald Parkway, Bright Road, and Blinn-Croft Creek. Property owners listed include JLP-Bright Rd, LLC and City of Dublin. The plan also indicates existing right-of-way (Ex. R/W) and proposed right-of-way (Prop. R/W) lines.

<u>Impacted Parcels:</u>	
273-008630	0.8 Acres
273-008632	1.2 Acres
273-008633	1.4 Acres
273-008634	1.5 Acres
Total:	±4.9 Acres

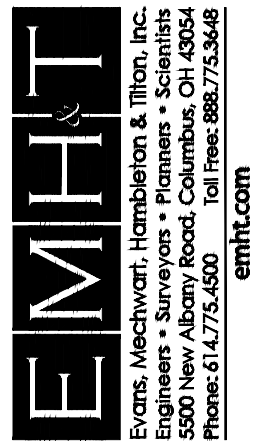
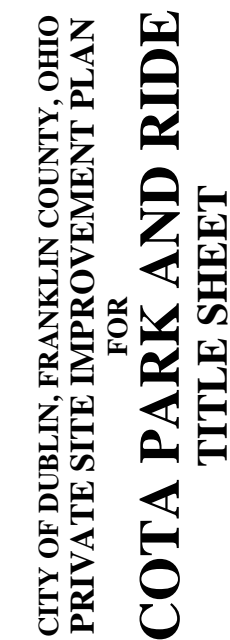
Proposed COTA Park and Ride
Parking Stalls 169 Spaces

Scale: 1" = 100'

The Standard Construction Drawings listed on these plans are to be considered a part thereof.

Date _____

REVISIONS		
MARK	DATE	DESCRIPTION



1/14

U:\20140568\Draw\04Sheets\Private Site Improvement Plan\20140568--2 General Notes and Details.dwg Last Saved By: Irfanz, 3/3/2015 3:40 PM Last Printed By: Pelletier, James, 3/5/2015 8:46 AM (No Xrefs)

2. The Contractor shall give notice of intent to construct to Ohio Utilities Protection Service (telephone number 800-362-2764), Producer's Underground Protection Service (telephone number 614-587-0486), and to owners of underground utilities that are not members of a registered underground protection service. Notice shall be given at least 2 working days before start of construction.
3. The identity and locations of existing underground utilities in the construction area have been shown on the approved construction drawings as accurately as provided by the owner of the underground utility. The City of Dublin and the City Engineer assumes no responsibility for the accuracy or depths of underground facilities shown on the approved construction drawings. If damage is caused, the Contractor shall be responsible for repair of the same and for any resulting contingent damage.
4. Location, support, protection and restoration of all existing utilities and appurtenances, whether shown or not shown on the approved construction drawings, shall be the responsibility of the Contractor.
5. When unknown or incorrectly located underground utilities are encountered during construction, the Contractor shall immediately notify the owner and the City Engineer.
6. Public street lighting may be in the vicinity of this project. Contact the City of Dublin, Division of Engineering at 410-4637, two days prior to beginning work.

TRAFFIC CONTROL

1. Traffic control shall be furnished, erected, maintained, and removed by the Contractor according to Ohio Manual of Uniform Traffic Control Devices (OMUTCD), current edition.
2. All traffic lanes of public roadways shall be fully open to traffic from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM unless otherwise differently by the City Engineer. At all other hours the Contractor shall maintain minimum one-lane two-way traffic. Uniformed, off-duty police officers shall replace flagmen designated by the OMUTCD, and shall be present whenever one-lane, two-way traffic control is in effect. Police cruisers may be required as directed by the City Engineer.
3. If the City Engineer determines proper provisions for traffic control are not being provided by the Contractor, the City Engineer shall assign uniformed, off-duty police officers to the project at no cost to the City.
4. Steady-burning, Type "C" lights shall be required on all barricades, drums, and similar traffic control devices in use at night.
5. Access from public roadways to all adjoining properties for existing residents or businesses shall be maintained throughout the duration of the project for mail, public water and sanitary sewer service, and emergency vehicles. The Contractor shall provide a traffic control plan detailing the proposed maintenance of traffic procedures. The traffic control plan must incorporate any traffic control details contained herein. The traffic control plan proposed by the Contractor must be approved by the City Engineer prior to construction.

EROSION AND SEDIMENT CONTROL

1. The City is responsible for submitting a Notice of Intent (NOI) to be reviewed and approved by the Ohio EPA. The NOI must be submitted to OEPA 45 days prior to the start of construction and may entitle coverage under the Ohio EPA General Permit for Stormwater Discharges associated with construction activity. A project location map must be submitted with the NOI. A sediment and erosion control plan must be submitted to the City Engineer for approval if a sediment and erosion control plan has not already been included with the approved construction drawings. This plan must be made available at the project site at all times. The design of erosion control systems shall follow the requirements of Ohio EPA, Item 207 of Ohio Department of Transportation Standard Specifications, and the City Engineer. An individual NPDES Stormwater Discharge Permit may be required. The Contractor shall be considered the permittee.
2. The Contractor shall provide sediment control at all points where storm water runoff leaves the project, including waterways, overland sheet flow, and storm sewers.
3. Accepted methods of providing erosion/sediment control include but are not limited to: sediment basins, silt filter fence, aggregate check dams, and temporary ground cover. Hay or straw bales are not permitted.
4. The Contractor shall provide adequate drainage of the work area at all times consistent with erosion control practices.
5. Disturbed areas that will remain unworked for 21 days or more shall be seeded or protected within seven calendar days of the disturbance. Other sediment controls that are installed shall be maintained until vegetative growth has been established. The Contractor shall be responsible for the removal of all temporary sediment devices at the conclusion of construction but not before growth of permanent ground cover.

BLASTING (IF PERMITTED)

1. The Contractor must obtain a blasting permit from Washington Township Fire Department prior to blasting for rock excavation. The Contractor shall submit blasting reports upon completion of blasting to the City Engineer, the Owner, and the Owner's engineer. Top rock elevations shall be shown on "as-built" construction drawings.

SANITARY SEWERS

1. Construction of the sanitary sewer will be permitted upon receiving an OEPA Permit to Install (PTI). The city is responsible for obtaining all required Ohio EPA approvals and paying review fees.
2. Sanitary sewage collection systems shall be constructed in accordance with the rules, regulations, standards and specifications of the City of Dublin, Ohio EPA, Ohio Department of Health and the current edition of the Great Lakes - Upper Mississippi River Board (Ten States) - Recommended standards for wastewater facilities.
3. The minimum requirements for sanitary sewer pipes with diameters 15 inch and smaller shall be reinforced concrete pipe ASTM C76 Class 3, or PVC sewer pipe ASTM D3034, SDR 35. Pipe for 6 inch diameter house service lines shall be PVC pipe ASTM D3034, SDR 35. PVC pipe shall not be used at depths greater than 28 feet, instead Ductile Iron, CI. 50 (AWWA 151) shall be used with prior written approval by the City Engineer. Pipe materials and related structures shall be shop tested in accordance with City of Columbus Construction Inspection Division quality control requirements.
4. The minimum requirements for sanitary sewer pipes with diameters greater than 15 inch shall be reinforced concrete pipe ASTM C76 with Class according to the approved construction drawings.
5. All in-line wye and tee connections in concrete sewers, 18 inch diameter and larger, shall be either Kor-N-Tee or Kor-N-Seal connections conforming to the manufacturer's recommendations.
6. Granular backfill shall be compacted granular material according to Item 912 of the Standard Specifications or Controlled Density Backfill according to Item 636, Type III of the Standard Specifications as directed by the City Engineer.
7. All manhole lids shall be provided with continuous self-sealing gaskets. The approved construction drawings shall show where bolt-down lids are required. Sanitary sewer manholes shall be precast concrete or as approved by the City Engineer and conform to the City of Dublin sanitary manhole standard drawing. Manhole lids shall include City of Dublin logo.
8. All PVC sewer pipes shall be deflection tested no less than 60 days after completion of backfilling operations. All other requirements shall be according to Item 901.21 of the Standard Specifications.
9. Temporary bulkheads shall be placed in pipes at locations shown on the approved construction drawings and shall remain in place until the sewers have been approved for use by the City Engineer. The cost for furnishing, installing, maintaining, and removing bulkheads shall be included in the contract unit bid price for the various sanitary sewer items.
10. All sanitary sewers including sanitary sewer service lines shall be subjected to and pass infiltration or exfiltration tests according to Item 901 of the Standard Specifications and must be approved for use by the City Engineer before any service connections are tapped into sewers.
11. For sanitary sewer infiltration, leakage through joints shall not exceed 100 gallons per inch of tributary sewer diameter per 24 hours per mile of length or the computed equivalent. All sanitary sewers shall be tested.
12. At the determination of the City Engineer, the Contractor may be required to perform a TV inspection of the sanitary sewer system prior to final acceptance by the City. This work shall be completed by the Contractor at his expense.
13. Visible leaks or other defects observed or discovered during TV inspection shall be repaired to the satisfaction of the Engineer.
14. Roof drains, foundation drains, field tile or other clean water connections to the sanitary sewer system are strictly prohibited according to Section 51.23 of the Dublin Code of Ordinances.
15. All water lines shall be located at least 10 feet horizontally and 18 inches vertically, from sanitary sewers and storm sewers, to the practicable. Where sanitary sewers cross water or other sewers or other utilities, trench backfill shall be placed between the pipes crossing and shall be compacted granular material according to Item 912 of the Standard Specifications. In the event that a water line must cross within 18 inches of a sanitary sewer, the sanitary sewer shall be concrete encased or consist of ductile iron pipe material.
16. Service risers shall be installed where the depth from wyes to proposed ground elevation exceeds 10 feet. Tops of risers shall be no less than 9 feet below proposed ground elevation if basement service is intended.
17. Where service risers are not installed, a minimum 5-foot length of sanitary sewer service pipe of the same size as the wye opening shall be installed.
18. The Contractor shall furnish and place, as directed, approved wye poles made of 2 inches x 2 inches lumber at all wye locations, ends of extended service, or at the end of each riser where risers are required. Wye poles shall be visible before acceptance by the City. The cost of these poles shall be included in the contract unit price for the various sewer items.
19. Existing sanitary sewer flows shall be maintained at all times. Costs for pumping and bypassing shall be included in the Contractor's unit price bid for the related items.

20. The Contractor shall furnish all material, equipment, and labor to make connections to existing manholes. The sewer pipe to manhole connections for all sanitary sewers shall be flexible and watertight. All holes shall be neatly cored. The sewer pipe barrel at the springline shall not extend more than 1 inch beyond the inside face of the manhole. To maintain flexibility in the connection, a 1-inch space shall be left between the end of the pipe inside the manhole and the concrete channel; this space shall be filled with a waterproof flexible joint filler. Any metal that is used shall be Type 300 Series Stainless Steel. The connection may be any of the following types:
- A. Rubber sleeve with stainless steel banding.
- 1) Kor-N-Seal as manufactured by National Pollution Control Systems, Inc.
- 2) Lock Joint Flexible Manhole Sleeve as manufactured by Interpace Corporation.
- 3) Or equal as approved by the City Engineer.
- B. Rubber gasket compression.
- 1) Press Wedge II as manufactured by Press-Seal Gasket Corporation.
- 2) Dura Seal III as manufactured by Dura Tech, Inc.
- 3) Link-Seal as manufactured by Thunderline Corporation.
- 4) Or equal as approved by the City Engineer.

The cost for this work along with a new channelized base for the manhole shall be included in the unit bid price for the related items of work.

WATERLINE

1. All water line materials shall be provided and installed according to current specifications of the City of Columbus Division of Power and Water (Water).
2. All public water pipe with a diameter 3 inches to 8 inches shall be Ductile Iron, Class 53. Public water pipe 12 in diameter or larger shall be Ductile Iron, Class 54. Public water pipe 20 inches in diameter or larger may be prestressed concrete pipe. Private water pipe shall meet the approval of the City of Columbus Division of Power and Water (Water) prior to approval of the construction drawings.
3. Only fire hydrants conforming to City of Columbus standards will be approved for use.
4. Public water lines shall be disinfected by the City of Columbus Division of Power and Water (Water). Requests for water line chlorination shall be made through the City of Dublin Division of Engineering. The cost for chlorination shall be paid for by the Contractor.
5. All water lines shall be disinfected according to Item 801.13 of the Standard specifications. Special attention is directed to applicable sections of American Water Works Association specification C-651, particularly for flushing (Section 5) and for chlorinating valves and fire hydrants (Section 7). Pressure testing shall be performed in accordance with Section 801.12 of the City of Columbus Construction and Material Specifications. When water lines are ready for disinfection, the City of Dublin shall submit two (2) sets of "as-built" plans, and a letter stating that the water lines have been pressure tested and need to be disinfected, to the City of Columbus, Division of Power and Water (Water). The Contractor shall be responsible for all costs associated with the disinfection of all water lines construction per this plan. Pressure testing shall be performed in accordance with Section 801.12 of the City of Columbus Construction and Material Specifications.
6. The Contractor shall paint all fire hydrants according to City of Dublin standards. The cost of painting fire hydrants shall be included in the contract unit price for fire hydrants.
7. No water taps or service connection permits (e.g., to curb stops or meter pits) may be issued until adjacent public water lines serving the construction site have been disinfected by the City of Columbus Division of Power and Water (Water) and have been accepted by the City Engineer. A tap permit for each water service must be obtained from the City of Dublin and the City of Columbus Division of Power and Water (Water) before making any taps into public water lines.
8. The Contractor shall notify the City of Columbus Division of Power and Water (Water) at 645-7788 and the City of Dublin Division of Engineering at least 24 hours before tapping into existing water lines.
9. All water main stationing shall be based on street centerline stationing.
10. All bends, joint deflections and fittings shall be backed with concrete per City of Columbus standards.
11. The Contractor shall give written notice to all affected property owners at least 1 working day but not more than 3 working days prior to any temporary interruption of water service. Interruption of water service shall be minimized and must be approved by the City Engineer.
12. Water meters shall be installed inside proposed structures unless a meter pit installation is approved by the City of Columbus Division of Power and Water (Water). Meter pits must conform to standard drawings L-7103, A&B for 5/8" through 1" meters or L-6317, A,B,C&D for 1-1/2" or larger meters.
13. Water lines to be installed in embankment areas shall be placed after the embankment has been placed and compacted according to the Standard Specifications.
14. Curb stop boxes shall be located at least 2 feet inside the right-of-way or 1 foot inside of sidewalk towards the curb and set at finished grade.
15. If the top of the operating nut of any valve is greater than 36 inches below finished grade, an extension stem shall be furnished to bring the top of the operating nut to within 24 inches of finished grade elevation.
16. All water lines shall be placed at a minimum depth of 4 feet measured from top of finished grade to top of water line. Water lines shall be set deeper at all points where necessary to clear existing or proposed utility lines or other underground restrictions by a minimum of 18 inches.
17. Two 3/4 inch taps shall be installed within 2 feet of the end of a line on all dead-end water lines.

STORM SEWERS

1. All storm water detention and retention areas and major flood routing swales shall be constructed to finish grade and hydro-seeded and hydro-mulched according to Items 203 and 659 of the Standard Specifications.
2. Where private storm sewers connect to public storm sewers, the last run of private storm sewer connecting to the public storm sewer shall be Reinforced Concrete Pipe conforming to ASTM Designation C76, Wall B, Class IV for pipe diameters 12 inches to 15 inches, Class III for 18 inches to 24 inch pipes, and 27 inches and larger pipe shall be Class II, unless otherwise shown on the approved construction drawings. Inspection is required by the City of Dublin's Division of Engineering.
3. Granular backfill shall be compacted granular material according to Item 912 of the Standard Specifications or Controlled Density Backfill according to Item 636, Type III of the Standard Specifications as directed by the City Engineer.
4. All storm sewers shall be Reinforced Concrete Pipe conforming to ASTM Designation C76, Wall B, Class IV for pipe diameters 12 inches to 15 inches, Class III for 18 inches to 24 inch pipes, and 27 inches and larger pipe shall be Class II, unless otherwise shown on the approved construction drawings.
5. All 8 inch storm sewers shall be Ductile Iron Pipe conforming to the material specification of AWWA C151, Joint Specification of AWWA C111, and Bedding Classification of ASTM C-12. All Ductile Iron Pipe shall be concrete encasing per City of Columbus Standard Drawing AA-S148.
6. Headwalls and endwalls shall be required at all storm sewer inlets or outlets to and from stormwater management facilities. Natural stone and/or brick approved by the City Engineer shall be provided on all visible headwalls and/or endwalls surfaces. Surfaces to be acid washed before approval of stone facing.
7. Storm inlets or catch basins shall be channelized and have bicycle safe grates.
8. Storm sewer outlets greater than 18 inches in diameter accessible from stormwater management facilities or watercourses shall be provided with safety grates, as approved by the City Engineer.

MAIL DELIVERY

1. The Contractor shall be responsible to ensure that U.S. Mail delivery within the project limits is not disrupted by construction operations. This responsibility is limited to relocation of mailboxes to a temporary location that will allow the completion of the work and shall also include the restoration of mailboxes to their original location or approved new location. Any relocation of mailbox services must be first coordinated with the US Postal Service and the homeowner.
2. Before relocating any mailboxes, the Contractor shall contact the U.S. Postal Service and relocate mailboxes according to the requirements of the Postal Service.

USE OF FIRE HYDRANTS

1. The Contractor shall make proper arrangements with the Dublin Service Department and the Columbus Division of Power and Water for the use of fire hydrants when used for work performed under this contract and provide the City of Dublin a copy of the Hydrant Usage Permit obtained from the City of Columbus. The Contractor shall also send copies of permits obtained from Dublin and Columbus to the Washington and/or Perry Township Fire Department. Permits shall be kept at the construction site at all times.
2. Before the final estimate is paid, the Contractor shall submit a letter from the City of Columbus Division of Power and Water (Water) to the City Engineer stating that the Contractor has returned the Siamese Valve to the City of Columbus and has paid all costs arising from the use of the fire hydrants.

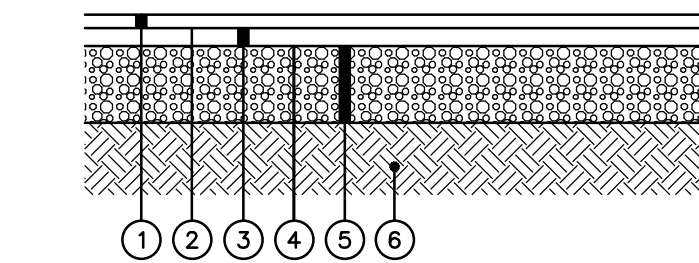
MISCELLANEOUS - DEVELOPER NOTES

1. High Density Polyethylene (HDPE) corrugated pipe with integrally formed smooth interior wall, ADS N-12 or approved equal, is an approved alternate to reinforced concrete pipe in paved and non-paved areas.
2. HDPE pipe joints shall be made using watertight couplers with "O"-ring gasket, ADS WT of approved equal, where rubber "O"-ring gasket (ASTM C-361) pipe is required on approved construction plans or within contract documents. All other pipe shall have a bell and spigot joint with rubber gasket meeting ASTM F477.
3. All bedding material shall be in accordance with City of Columbus Standard Construction Drawing AA-S149.

4. Backfill material shall be placed in accordance with Item 911 of the City of Columbus Construction Material Specifications (CMS).
5. Backfill material in areas located outside the public right-of-way shall be placed in accordance with City of Columbus Standard Construction Drawing AA-S155.
6. Height of cover shall be in accordance with the Ohio Department of Transportation (ODOT) Location and Design (L&D) Manual, Volume Two, Section 1008.3.1.
7. All HDPE pipe shall be mandrel tested in accordance with City of Columbus Item 901.21, with the exception that the waiting period prior to testing shall be 30 days.
8. For any and all installations requiring the minimization of trench water migration, anti-seep collars shall be installed in accordance with the ODOT L&D Manual, Volume Two Section 1118.4.1.2 and ODOT Standard Hydraulic Construction Drawing WQ-1.2.

AS-BUILTS

1. As-builts of the site, utilities and stormwater management facilities shall be performed per requirements of the City of Dublin Administrative Policy & Procedure #08-030 prior to obtaining occupancy for the building.



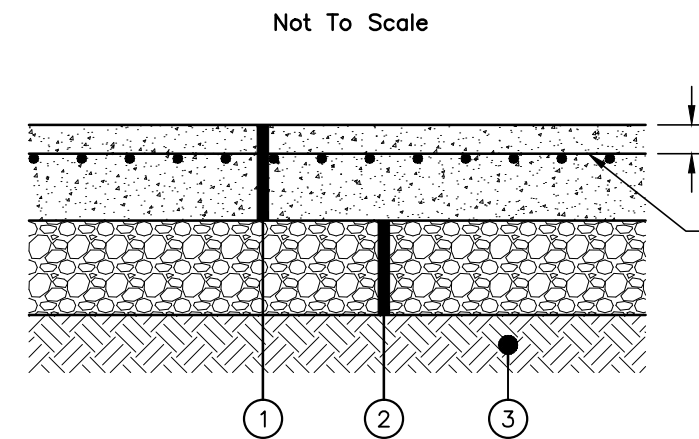
TYPICAL SECTION

- ① Item 448, 1 1/2" Asphalt Concrete Surface Course
② Item 407, NTSS-1HM Trackless Tack Coat (0.06 Gal/Sq. Yd)
③ Item 448, 2 1/2" Asphalt Concrete Intermediate Course
④ Item 407, NTSS-1HM Trackless Tack Coat (0.08 Gal/Sq. Yd)
⑤ Item 304, 6" Crushed Aggregate Base
⑥ Item 203, Subgrade Compaction

Note:

Pavement Section is per the recommendation of the Central Ohio Transit Authority (COTA) on December 22, 2014. All Pavement Materials shall Conform to the City of Columbus Construction and Material Specifications Together with the State of Ohio, Department of Transportation Construction and Material Specifications.

PAVEMENT SECTION



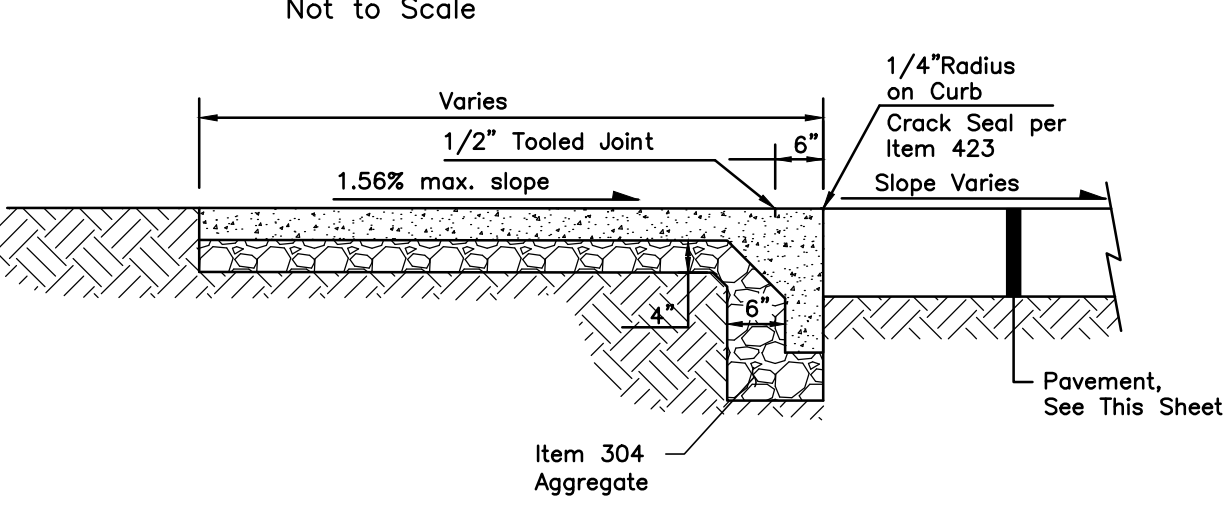
TYPICAL SECTION

- ① Item 451, 10" Reinforced Concrete Pavement (Class C)
② Item 304, 8" Crushed Aggregate Base
③ Item 204, Subgrade Compaction

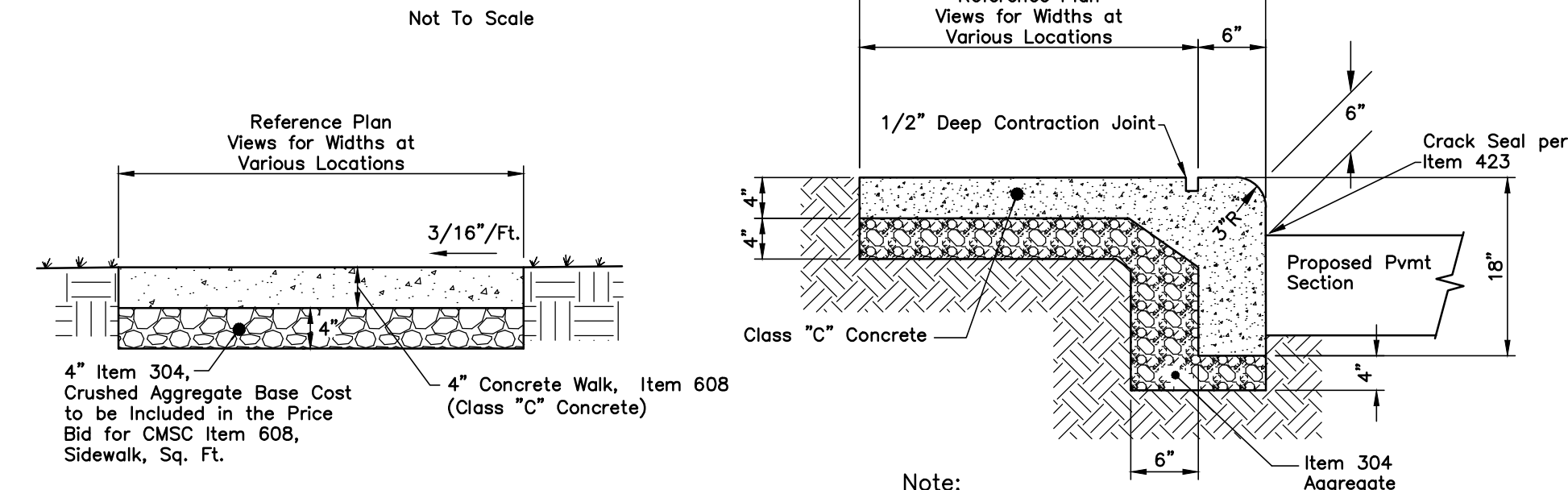
Note:

Pavement Section is per the recommendation of the Central Ohio Transit Authority (COTA) on December 22, 2014. All Pavement Materials shall Conform to the City of Columbus Construction and Material Specifications Together with the State of Ohio, Department of Transportation Construction and Material Specifications.

CONCRETE PAVEMENT



FLUSH COMBINATION CURB AND SIDEWALK



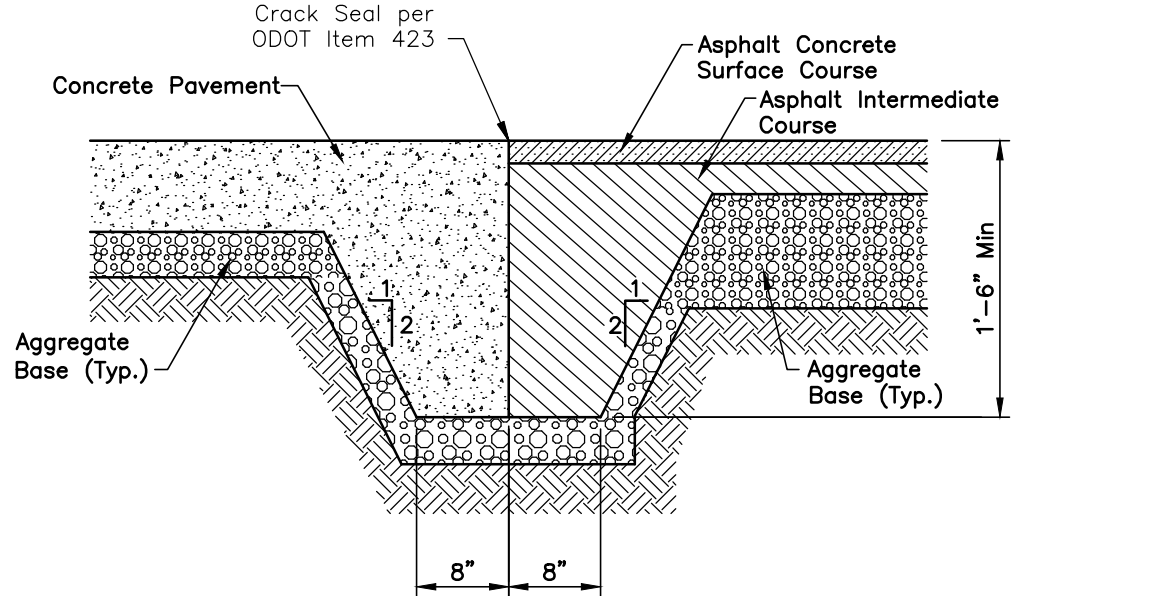
Sidewalk Joints (Price shall be included w/Item 608) Shall be in Accordance With CMS Item 608.03 Unless Otherwise Detailed as a Part of the Building or Landscape Architect Plans.

TYPICAL SIDEWALK SECTION

Not To Scale

STANDARD COMBINED CURB AND WALK

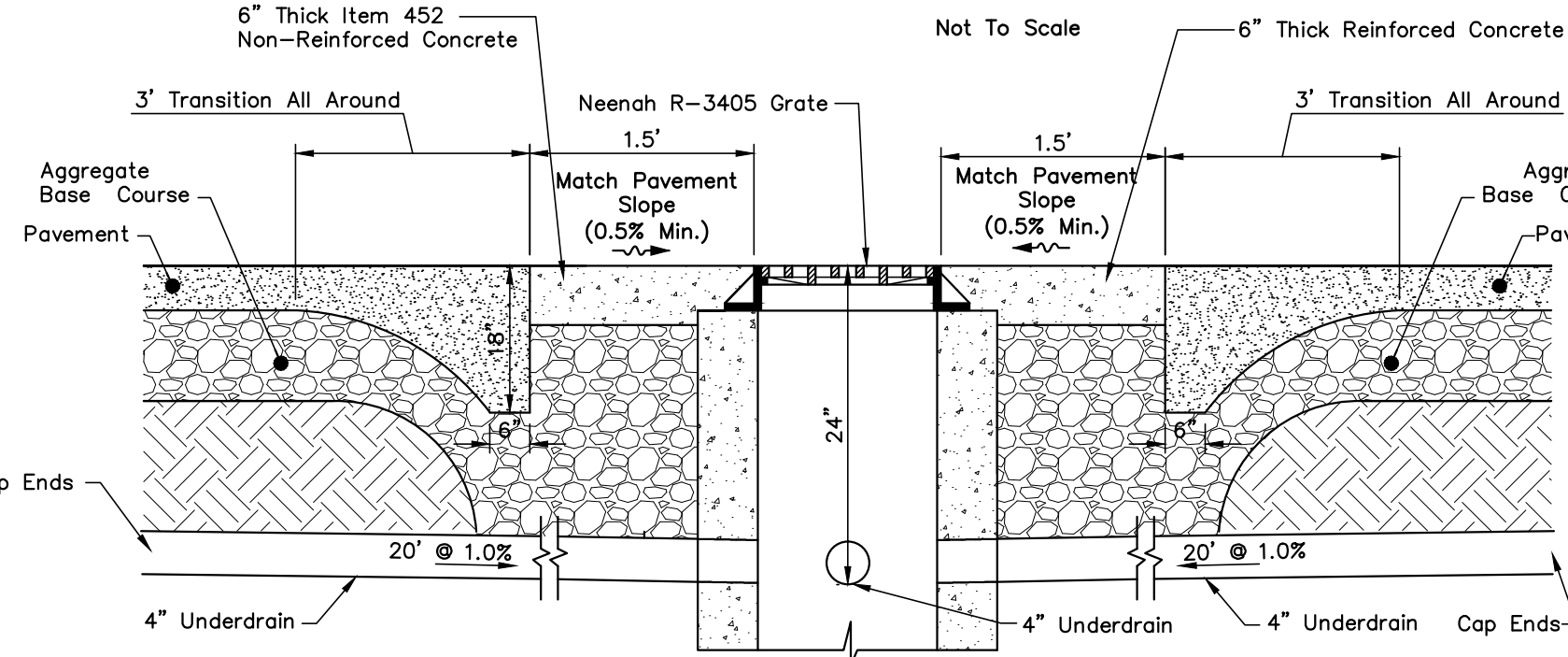
Not To Scale



Note:

Contractor Shall Provide Turndown Anywhere Asphalt and Concrete or Concrete Base Pavement Meet.

CONCRETE/ASPHALT TURNDOWN DETAIL

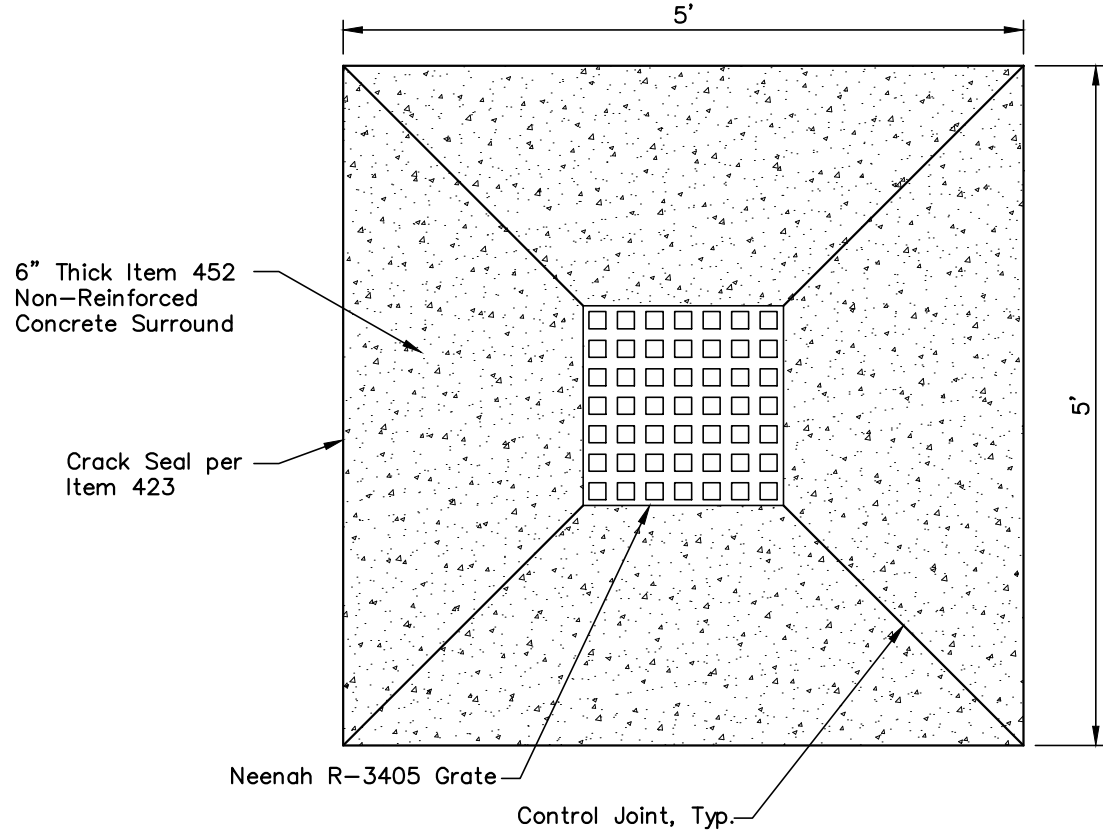


SECTION

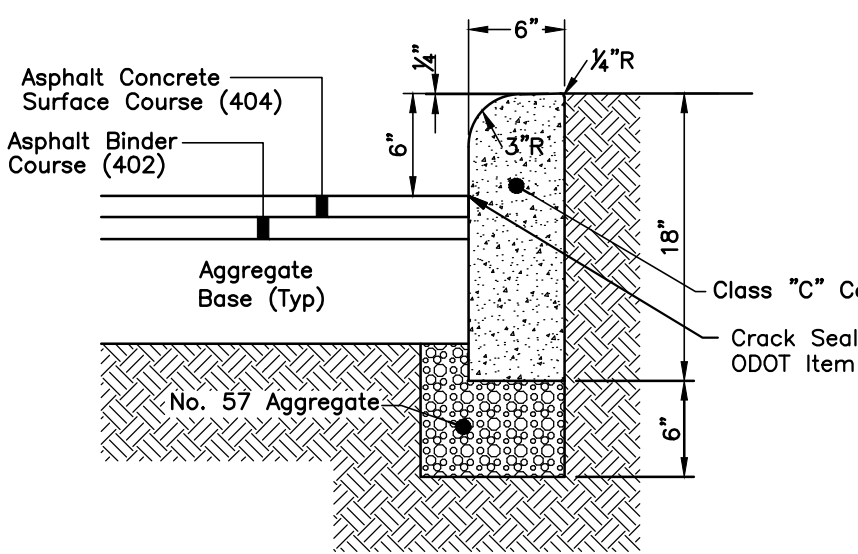
The 4" Perforated Underdrain shall be provided for each structure in all four directions unless otherwise directed.

The Perforated Pipe shall be protected from heavy traffic after installation prior to placement of proposed pavement.

The Contractor shall initially set the top of casting for an inlet of Columbus Division of Power and Water (Water) to the elevation of the intermediate pavement course. Prior to final paving of surface course, the Contractor shall adjust the top of casting to finish pavement grade. cost of the above shall be included in the price bid for the various related sewer items.



CONCRETE SURROUND WITH ASPHALT TURNDOWN FOR STRUCTURES WITHIN PAVEMENT



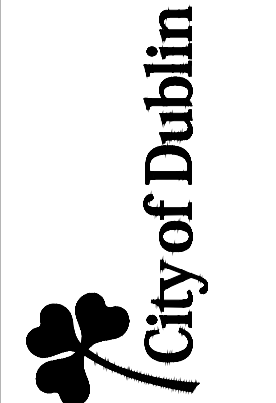
STRAIGHT 18" CONCRETE CURB



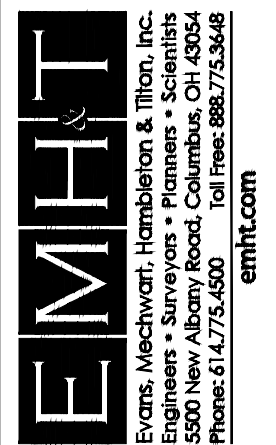
PRELIMINARY
NOT TO BE USED FOR
CONSTRUCTION

PLAN SET DATE
March 3, 2015

REVISIONS	MARK	DATE	DESCRIPTION

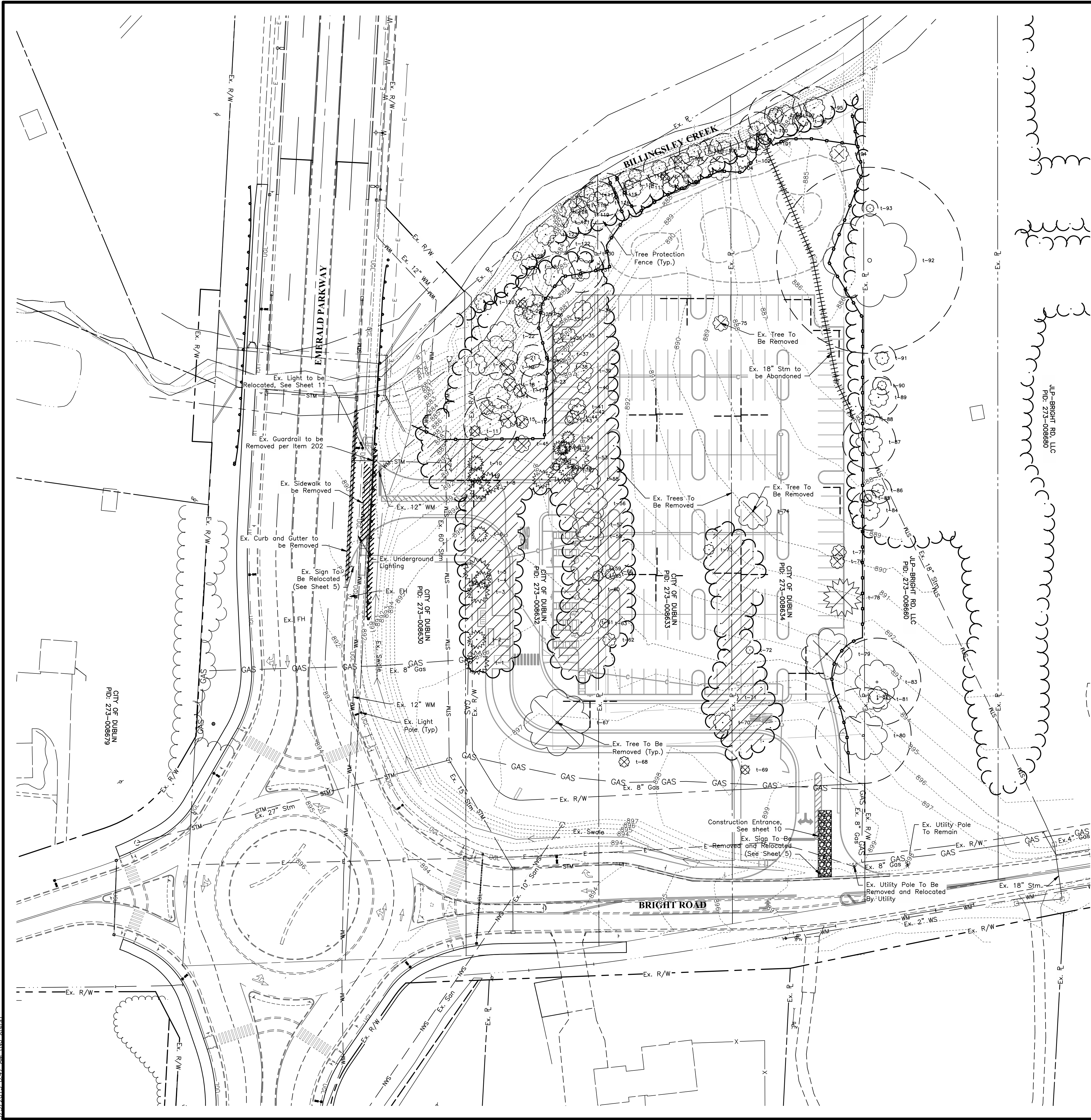


CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
GENERAL NOTES AND DETAILS



DATE
March 3, 2015
SCALE
Not To Scale
JOB NO.
2014-0588
SHEET
2/14

\\20140588\Drawings\04\Private Site Improvement Plan\20140588-3 Existing Conditions and Tree Survey.dwg Last Saved By: jpetlier, 3/4/2015 10:25 AM Last Printed By: Petlier, Jones, 3/5/2015 8:47 AM (No Xrefs)



Tree ID	Common Name	Scientific Name	DBH Inches	Trunk Count	Condition
1	Virginia-Pine	Pinus virginiana	18	1	Dead
2	Virginia-Pine	Pinus virginiana	14	1	Poor
3	Virginia-Pine	Pinus virginiana	17	1	Dead
4	Virginia-Pine	Pinus virginiana	13	1	Poor
5	Virginia-Pine	Pinus virginiana	21	1	Poor
6	Virginia-Pine	Pinus virginiana	12	1	Dead
7	Virginia-Pine	Pinus virginiana	17	1	Poor
8	Virginia-Pine	Pinus virginiana	16	1	Poor
9	Virginia-Pine	Pinus virginiana	13	1	Dead
10	Virginia-Pine	Pinus virginiana	12	1	Poor
11	Black Locust	Robinia pseudoacacia	8	1	Dead
12	Black Locust	Robinia pseudoacacia	20	1	Fair
13	Green-Ash	Fraxinus pennsylvanica	11	1	Dead
14	Black Walnut	Juglans nigra	18	1	Fair
15	Green-Ash	Fraxinus pennsylvanica	13	1	Dead
16	Green-Ash	Fraxinus pennsylvanica	10	1	Dead
17	Green-Ash	Fraxinus pennsylvanica	10	1	Dead
18	Green-Ash	Fraxinus pennsylvanica	10	1	Dead
19	Green-Ash	Fraxinus pennsylvanica	12	1	Dead
20	Black Walnut	Juglans nigra	16	1	Fair
21	Green-Ash	Fraxinus pennsylvanica	23	1	Dead
22	Black Walnut	Juglans nigra	22	1	Fair
23	Black Walnut	Juglans nigra	13	1	Fair
24	Hackberry	Celtis occidentalis	12	1	Fair
25	Hackberry	Celtis occidentalis	6,8	2	Poor
26	Hackberry	Celtis occidentalis	15	1	Fair
27	Hackberry	Celtis occidentalis	16	1	Good
28	Hackberry	Celtis occidentalis	6	1	Dead
29	Black Walnut	Juglans nigra	7	1	Fair
30	Tulip Tree	Liriodendron tulipifera	14	1	Good
31	Tulip Tree	Liriodendron tulipifera	17	1	Good
32	Tulip Tree	Liriodendron tulipifera	14,16	2	Fair
33	Tulip Tree	Liriodendron tulipifera	11	1	Poor
34	Tulip Tree	Liriodendron tulipifera	15	1	Poor
35	Tulip Tree	Liriodendron tulipifera	12	1	Fair
36	Tulip Tree	Liriodendron tulipifera	8	1	Dead
37	Tulip Tree	Liriodendron tulipifera	12	1	Fair
38	Tulip Tree	Liriodendron tulipifera	12	1	Fair
39	Tulip Tree	Liriodendron tulipifera	14	1	Fair
40	Tulip Tree	Liriodendron tulipifera	10	1	Fair
41	Tulip Tree	Liriodendron tulipifera	13	1	Poor
42	Tulip Tree	Liriodendron tulipifera	12	1	Fair
43	Sugar-Maple	Acer saccharum	7	1	Good
44	Virginia-Pine	Pinus virginiana	10	1	Dead
45	Sugar-Maple	Acer saccharum	13	1	Poor
46	Virginia-Pine	Pinus virginiana	14	1	Fair
47	Virginia-Pine	Pinus virginiana	20	1	Good
48	Virginia-Pine	Pinus virginiana	12	1	Good
49	Virginia-Pine	Pinus virginiana	10	1	Poor
50	Virginia-Pine	Pinus virginiana	6	1	Poor
51	Virginia-Pine	Pinus virginiana	11	1	Fair
52	Virginia-Pine	Pinus virginiana	8	1	Fair
53	Virginia-Pine	Pinus virginiana	20	1	Good
54	Virginia-Pine	Pinus virginiana	10	1	Fair
55	Tulip Tree	Liriodendron tulipifera	20	1	Good
56	Tulip Tree	Liriodendron tulipifera	28	1	Good
57	Tulip Tree	Liriodendron tulipifera	24	1	Fair
58	Tulip Tree	Liriodendron tulipifera	20	1	Fair
59	Tulip Tree	Liriodendron tulipifera	24	1	Fair
60	Tulip Tree	Liriodendron tulipifera	19	1	Fair
61	Tulip Tree	Liriodendron tulipifera	21	1	Good
62	Red-Mulberry	Morus rubra	10,9,7,6	4	Poor
63	Red-Mulberry	Morus rubra	7,6,6	3	Fair

Tree ID	Common Name	Scientific Name	DBH Inches	Trunk Count	Condition
64	Red-Mulberry	Morus rubra	8,7,5	3	Fair
65	Hackberry	Celtis occidentalis	8	1	Fair
66	Red-Mulberry	Morus rubra	10,7,6	3	Fair
67	Sugar-Maple	Acer saccharum	25	1	Poor
68	American-Elm	Ulmus americana	8,6,6	3	Poor
69	Sugar-Maple	Acer saccharum	7,7	2	Fair
70	Green-Ash	Fraxinus pennsylvanica	14	1	Dead
71	American-Elm	Ulmus americana	6	1	Fair
72	Green-Ash	Fraxinus pennsylvanica	6	1	Dead
73	Green-Ash	Fraxinus pennsylvanica	8	1	Dead
74	Green-Ash	Fraxinus pennsylvanica	27	1	Dead
75	Green-Ash	Fraxinus pennsylvanica	12	1	Dead
76	Cottonwood	Populus deltoides	11,9,8	3	Poor
77	Cottonwood	Populus deltoides	11,7	2	Poor
78	Virginia-Pine	Pinus virginiana	29	1	Fair
79	Silver Maple	Acer saccharinum	38	1	Good
80	Cottonwood	Populus deltoides	36	1	Good
81	Sycamore	Platanus occidentalis	19	1	Good
82	Sugar Maple	Acer saccharum	6,7	2	Good
83	Cottonwood	Populus deltoides	33	1	Good
84	Black Locust	Robinia pseudoacacia	15,11	1	Fair
85	Black Locust	Robinia pseudoacacia	6	1	Fair
86	Red Mulberry	Morus rubra	10,7,10,6,6	5	Fair
87	Silver Maple	Acer saccharinum	20,9,12	3	Fair
88	Silver-Maple	Acer saccharinum	8	1	Dead
89	Black Walnut	Juglans nigra	15	1	Poor
90	Red Mulberry	Morus rubra	6,7	2	Poor
91	Red Mulberry	Morus rubra	10	1	Fair
92	Cottonwood	Populus deltoides	70	1	Fair
93	Hawthorn	Crataegus phaenopyrum	6	1	Fair
94	Red-Mulberry	Morus rubra	14,8	2	Poor
95	Black Walnut	Juglans nigra	16	1	Good
96	Black Walnut	Juglans nigra	8	1	Good
97	Black Walnut	Juglans nigra	16	1	Good
98	Hackberry	Celtis occidentalis	12	1	Good
99	Hackberry	Celtis occidentalis	12,8	2	Good
100	Black Walnut	Juglans nigra	14	1	Good
101	Black Walnut	Juglans nigra	17	1	Good
102	Hackberry	Celtis occidentalis	10	1	Good
103	Black Walnut	Juglans nigra	11	1	Good
104	Hackberry	Celtis occidentalis	18	1	Good
105	Hackberry	Celtis occidentalis	9	1	Good
106	Hackberry	Celtis occidentalis	11	1	Good
107	Hackberry	Celtis occidentalis	6	1	Fair
108	Green-Ash	Fraxinus pennsylvanica	28	1	Dead
109	Green-Ash	Fraxinus pennsylvanica	6	1	Dead
110	Hackberry	Celtis occidentalis	8	1	Fair
111	Hackberry	Celtis occidentalis	12	1	Good
112	Hackberry	Celtis occidentalis	10	1	Good
113	Red Mulberry	Morus rubra	14	1	Fair
114	American Elm	Ulmus americana	7	1	Fair
115	Black Walnut	Juglans nigra	16	1	Fair
116	Hackberry	Celtis occidentalis	16	1	Fair
117	Hackberry	Celtis occidentalis	12	1	Fair
118	Black Locust	Robinia pseudoacacia	12,10	1	Dead
119	Black Walnut	Juglans nigra	14	1	Fair
120	Black Walnut	Juglans nigra	9	1	Fair
121	Black Walnut	Juglans nigra	10	1	Poor
122	Black Walnut	Juglans nigra	16	1	Fair
123	Black Walnut	Juglans nigra	16	1	Fair
124	Hackberry	Celtis occidentalis	14,10	1	Good
125	Hackberry	Celtis occidentalis	7	1	Good
126	Black Walnut	Juglans nigra	14	1	Good

TREE SURVEY DATA

Total Trees: 113 Trees on site (1729 Caliper Inches)
Total Trees to be Removed: 73 Trees (1109 Caliper Inches)
-Dead Trees: 23 Trees (314 Caliper Inches)
*Includes Landmark Trees: 3 Trees (88 Caliper Inches)
-Living Trees: 50 Trees (795 Caliper Inches)**
**Includes Landmark Trees: 7 Trees (189 Caliper Inches)

Notes: 1. Tree Survey Data does not include trees located outside of the property.
2. All dead trees on the property shall be removed.

LEGEND

WM — Existing Watermain
STM — Existing Storm Sewer
SAN — Existing Sanitary Sewer
GAS — Existing Gas Main
OHE — Existing Overhead Electric
E — Existing Underground Electric
UGL — Existing Underground Lighting
Ex. Trees To Be Removed
Ex. Trees to Be Removed
Tree Protection Fence
Critical Root Zone (CRZ)

GRAPHIC SCALE

0 20 40 80
1 inch = 40 feet

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
March 3, 2015

TREE PROTECTION
NO SCALE

Existing tree or tree mass
Notes:
1. Inspection of installation is required.
2. The city is to be contacted if fence location needs to be adjusted or prior to any encroachment of preservation area.

4x4 wood post (optional)
Existing Grade
2x4 wood Rails
CRZ or 15' radius whichever is greater
High visibility medium weight barrier
Fencing attach to post with zip ties at 1' O.C.
Steel fence
Stake at 6' O.C.
Storage of materials or Construction traffic is prohibited

REVISIONS

MARK	DATE	DESCRIPTION

City of Dublin

CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
EXISTING CONDITIONS, TREE SURVEY, AND
DEMOLITION

EMHT
Evans, Meacham, Henderson & Thon, Inc.
5900 New Albany Road, Columbus, OH 43254
Phone: 614.775.4500 Toll Free: 888.775.3448
emht.com

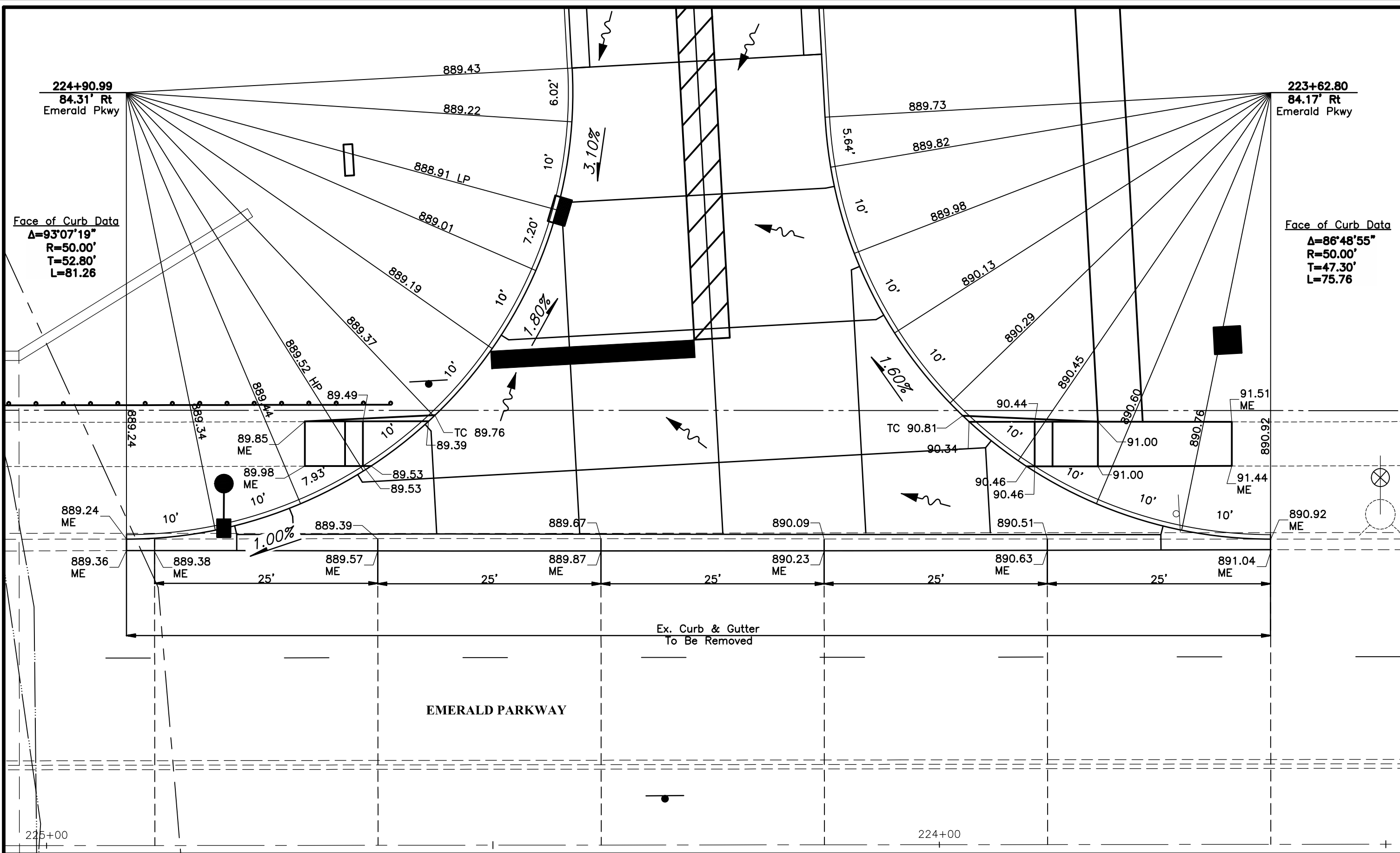
DATE
March 3, 2015

SCALE
1" = 40'

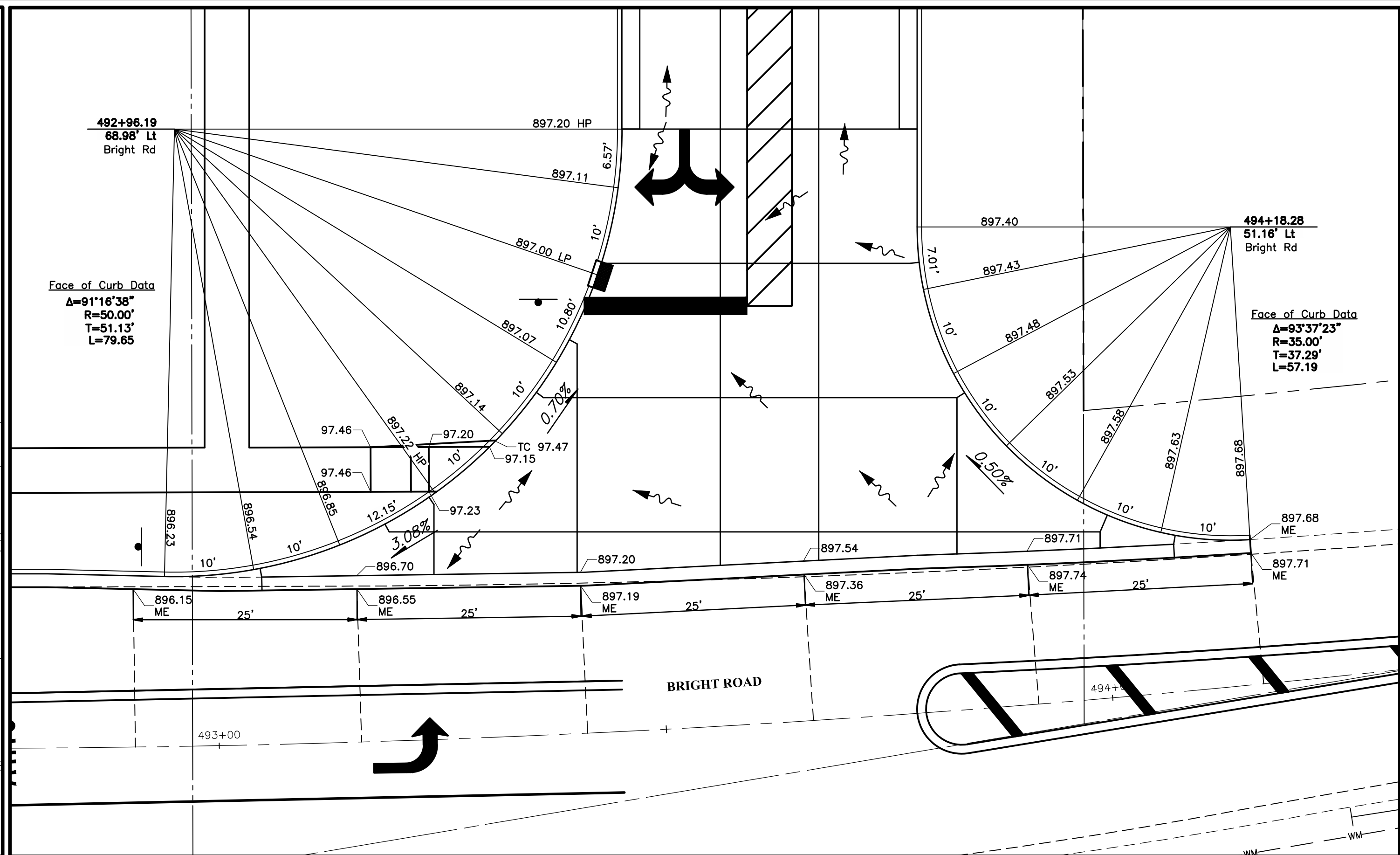
JOB NO.
2014-0588

SHEET
3/14

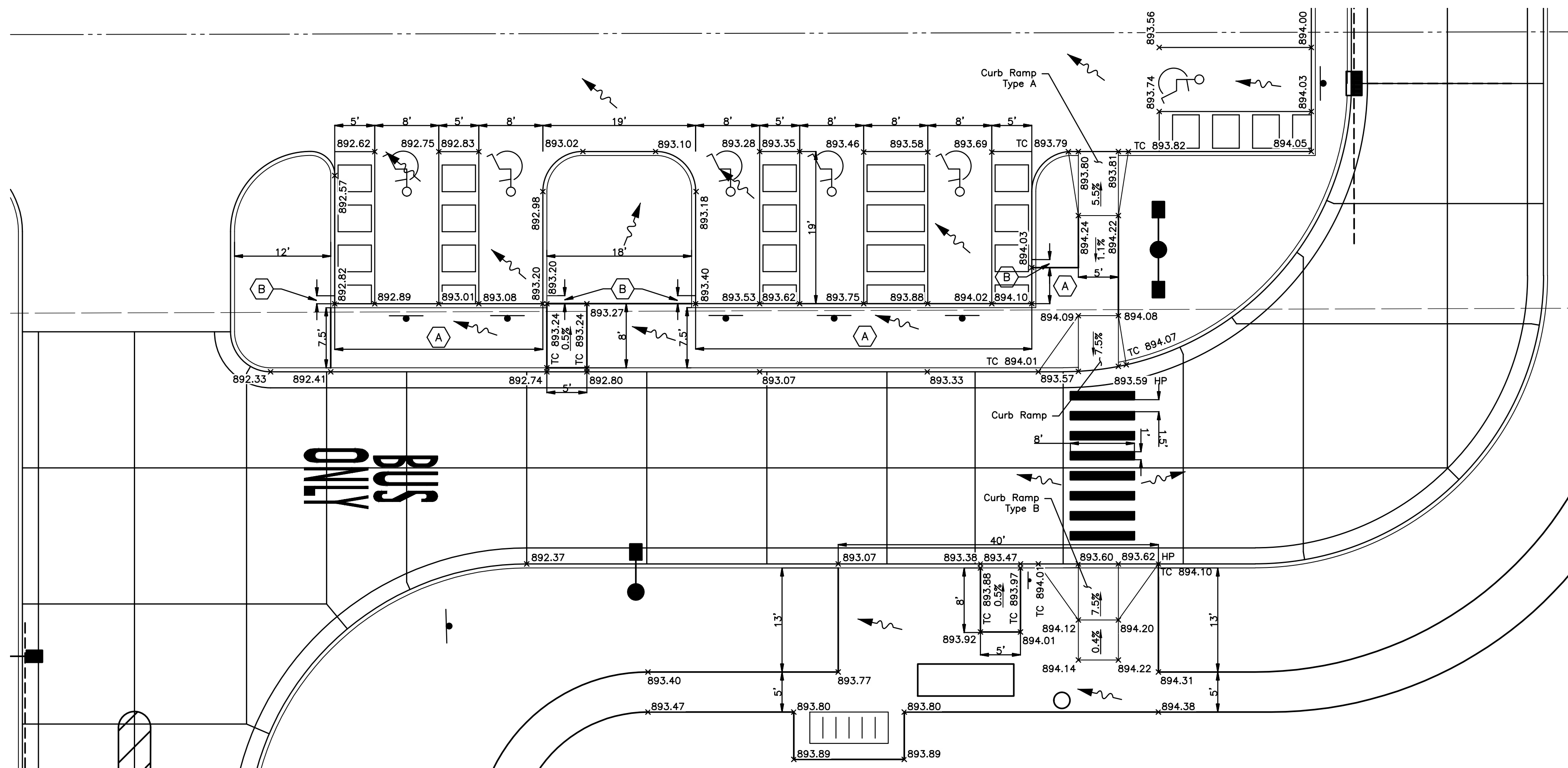
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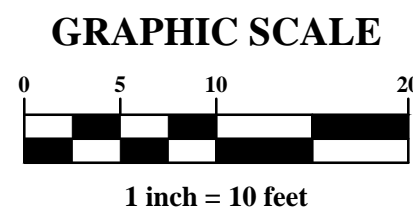
INTERSECTION DETAIL FOR DRIVEWAY
ON EMERALD PARKWAY
Scale: 1"=10'



INTERSECTION DETAIL FOR DRIVEWAY
ON BRIGHT ROAD
Scale: 1"=10'



SIDEWALK AND PAVEMENT GRADING DETAIL
Scale: 1"=10'



NOTES:

All elevations are Top of Pavement unless otherwise indicated.

The Top of Curb elevation is 0.50' above the edge of pavement unless otherwise indicated.

Curve Data is calculated at the face of curb.

LEGEND

TC Top of Curb
ME Match Existing
HP High Point
LP Low Point

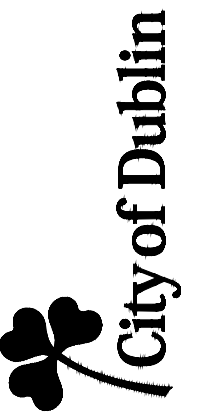
(A) Curb Flush with Pavement
(B) Transition to Full Height Curb in 1'

PRELIMINARY
NOT TO BE USED FOR
CONSTRUCTION

PLAN SET DATE
March 3, 2015

REVISIONS

MARK	DATE	DESCRIPTION



CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
DRIVE AND HC GRADING DETAILS

EMHT
Evans, Meacham, Hensley & Tilton, Inc.
5900 New Albany Road, Columbus, OH 43254
Phone: 614.775.6500 Toll Free: 888.775.3448
emht.com

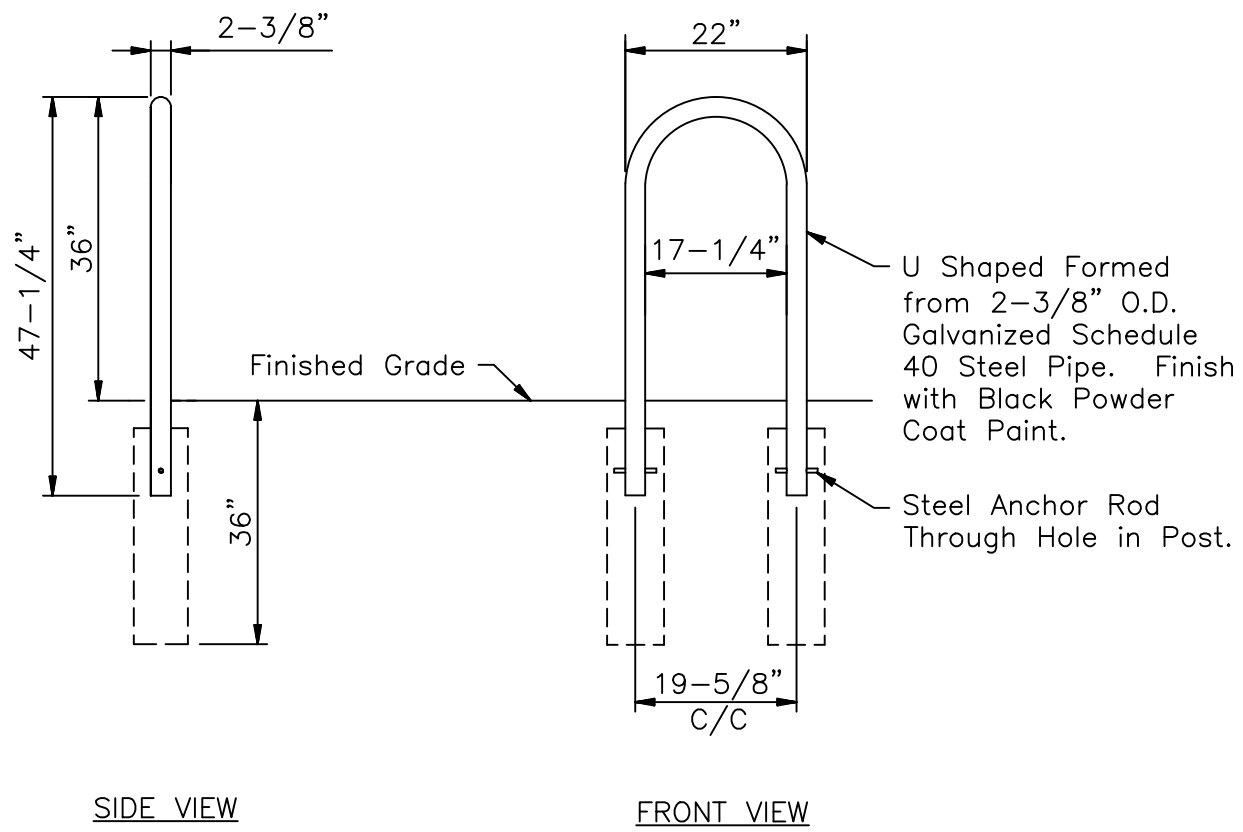
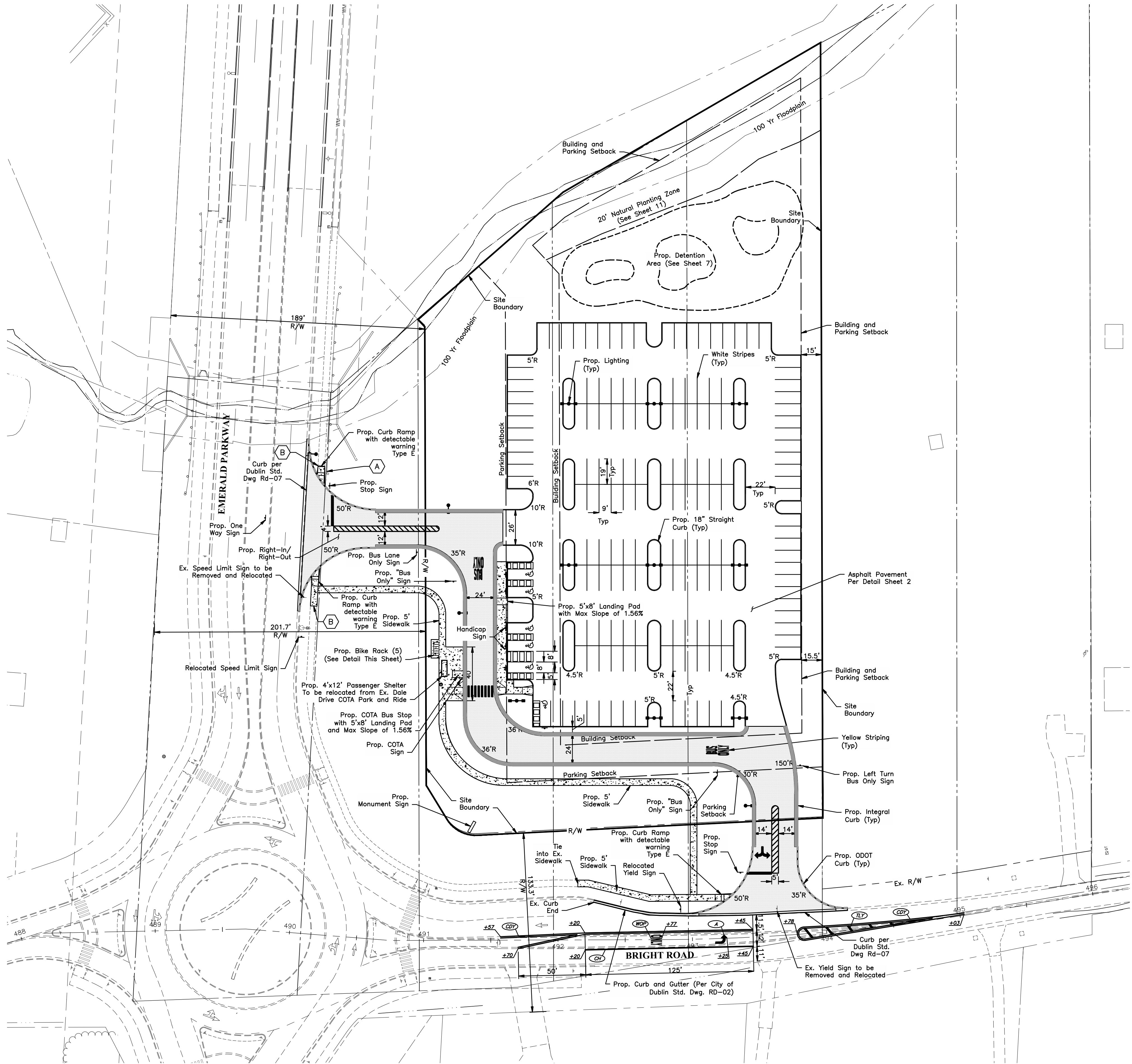
DATE
March 3, 2015

SCALE
1" = 10'

JOB NO.
2014-0588

SHEET
4/14

U:\20140588\Draw\04\Sheets\Private Site Improvement Plan\20140588-5 Site Staking Plan.dwg Last Saved By: jpetter, 3/4/2015 11:44 AM Last Printed By: Petter, James, 3/5/2015 8:47 AM



PAVEMENT MARKING LEGEND

- CDY Item 644, Center Line, 4", Double Yellow
- TYL Item 644, Transverse Line, 24", Yellow
- CH Item 644, Channelizing Line, 8", White
- A Item 644, 72", Arrow, White
- WOP Item 644, 84", Word on Pavement, White

Pavement markings within asphalt pavement area shall be white per Item 642.

Pavement markings within concrete pavement area shall be yellow per Item 642.

NOTE:

- A Existing guard rail to be reconstructed as a beginning flare per Emerald Parkway Phase 8 Plans (07-008-CIP)
- B Removal and installation of sidewalk shall extend to the nearest adjacent control joint.

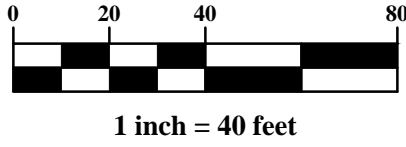
NOTE:

All Radii are 5' unless otherwise noted.

LEGEND

- Concrete Pavement, See Detail, Sheet 2
- Concrete Sidewalk, See Detail, Sheet 2
- ODOT Type 2 Curb, Per BP-5.1, T=10"
- ODOT Type 2-A Curb, Per BP-5.1

GRAPHIC SCALE



PRELIMINARY
NOT TO BE USED FOR
CONSTRUCTION

PLAN SET DATE
March 3, 2015

MARK	DATE	DESCRIPTION



CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
SITE STAKING PLAN

EMHIT
Evans, Mechwart, Hamblen & Tilton, Inc.
5300 New Albany Road, Columbus, OH 43254
Phone: 614.775.6500 Toll Free: 888.775.3448
emhit.com

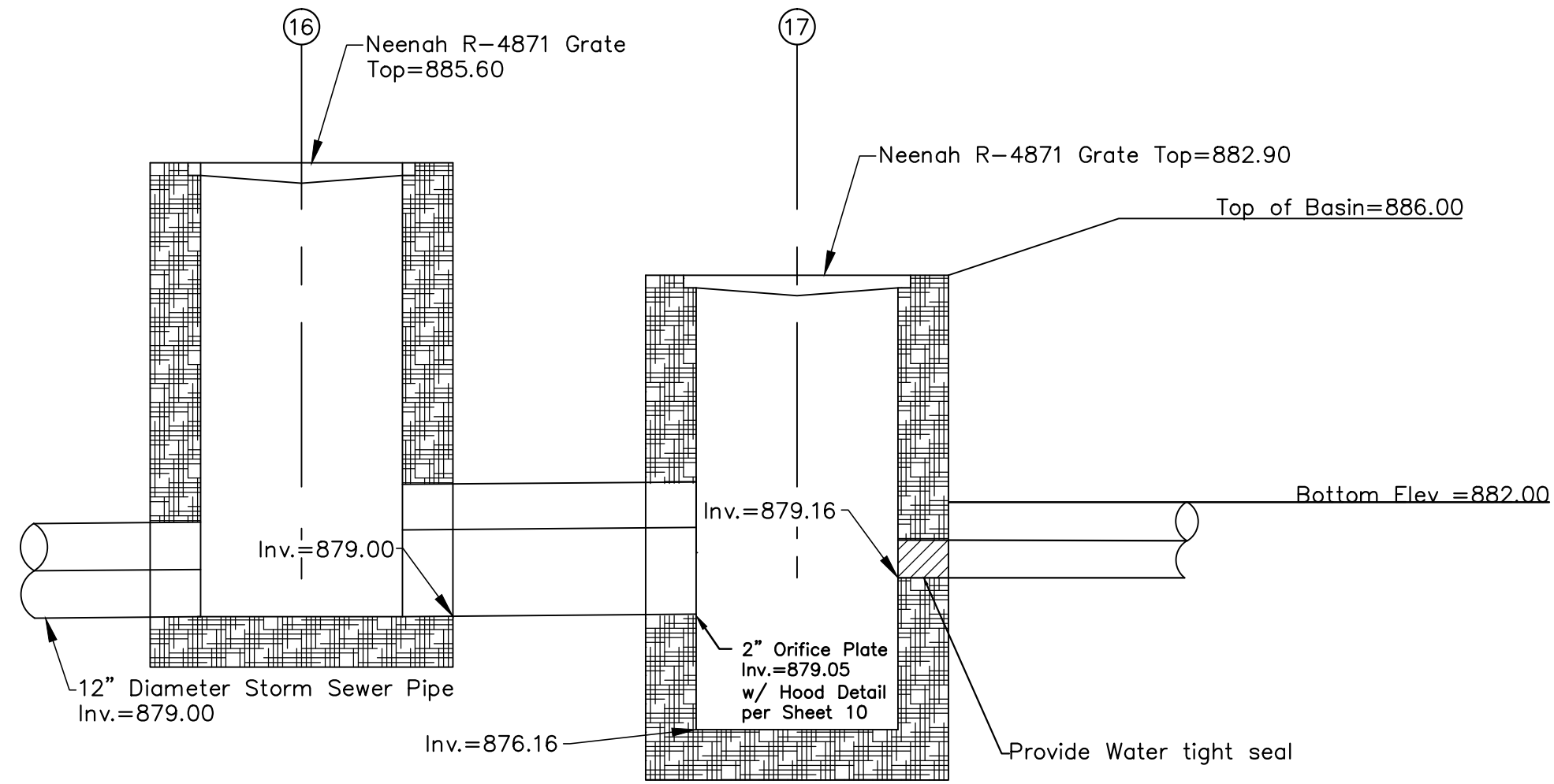
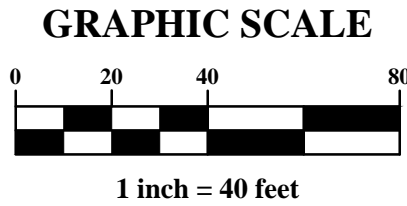
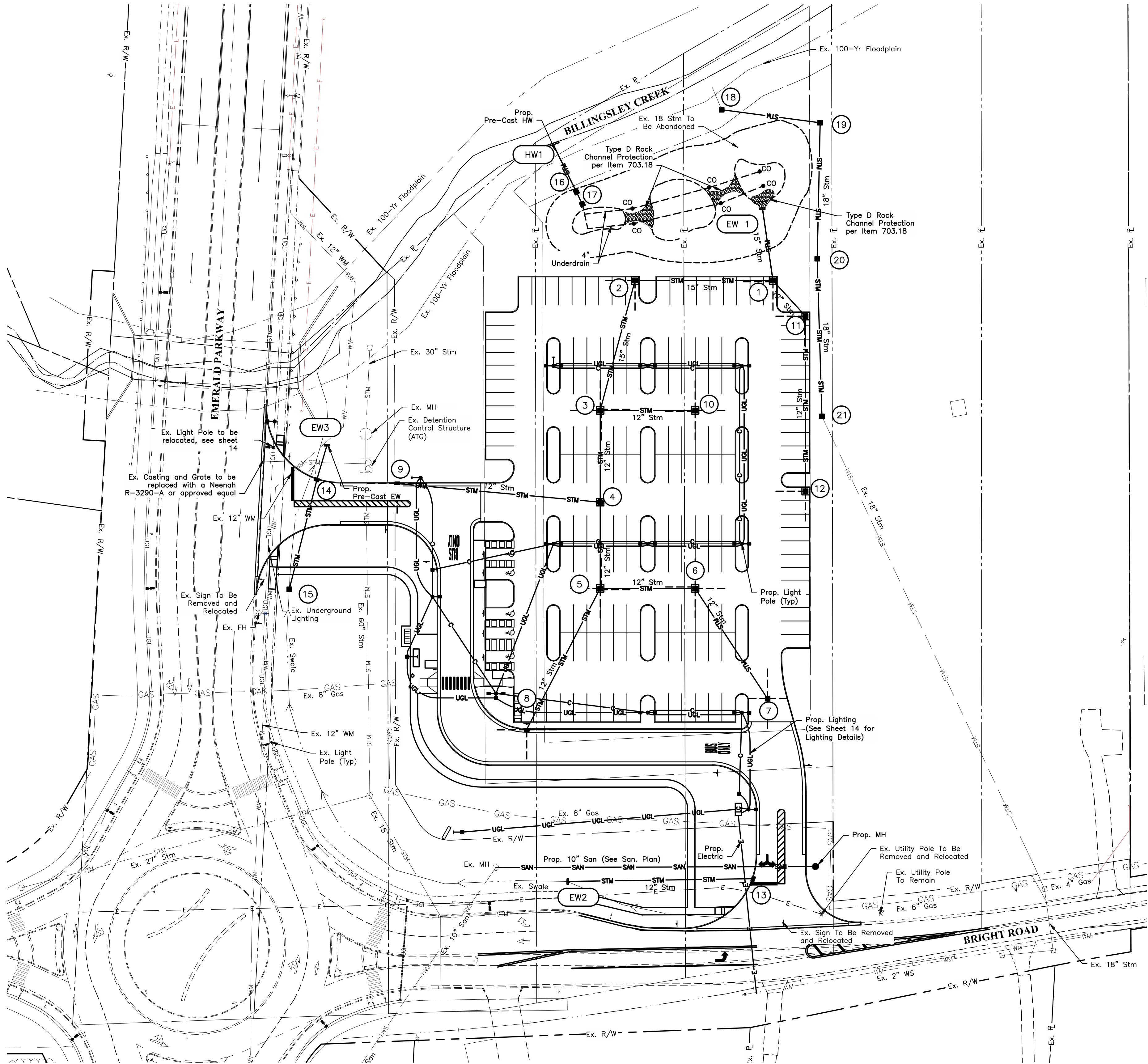
DATE
March 3, 2015

SCALE
1" = 40'

JOB NO.
2014-0588

SHEET
5/14

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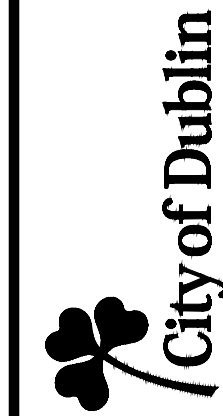
OUTLET STRUCTURE DETAIL
Not to Scale

LEGEND

- | | | |
|--|----------|--|
| | WM | Existing Watermain |
| | STM | Existing Storm Sewer |
| | GAS | Existing Gas Main |
| | OHE | Existing Overhead Electric |
| | E | Existing Underground Electric |
| | UGL | Existing Underground Street Lighting (DOP) |
| | OHC | Existing Overhead Communication |
| | C | Existing Underground Communication |
| | OHE-OHC | Existing Overhead Communication & Electric |
| | FO | Existing Fiber Optic |
| | STM | Proposed Storm Sewer Main |
| | WS | Proposed Water Service (By Separate Plan) |
| | DWS | Proposed Domestic Water Service (By Separate Plan) |
| | FWS | Proposed Fire Service (By Separate Plan) |
| | GM | Proposed Gas Main (By Separate Plan) |
| | SAN | Proposed Sanitary Sewer Main (By Separate Plan) |
| | SAS | Proposed Sanitary Service (By Separate Plan) |
| | C | Proposed Underground Communication (By Separate Plan) |
| | E | Proposed Underground Electric (By Separate Plan) |
| | UGL | Proposed Underground Lighting |
| | SD | Silt Fence |
| | 854-855 | Existing Contours |
| | 854-855 | Proposed Contours |
| | x 856.00 | Proposed Spot Elevation (Top of Pavement Unless Noted Otherwise) |
| | | Flow Direction Arrow |
| | | 100-Yr Flood Routing In Pipe |
| | | Grade Break |
| | ME | Match Existing |
| | HP | High Point |
| | HW | Headwall |
| | C&GI | Curb and Gutter Inlet |
| | CB | Catch Basin |
| | ATG | Adjust To Grade |

REVISIONS

MARK	DATE	DESCRIPTION



CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
UTILITY PLAN



DATE
March 3, 2015

SCALE
1" = 40'

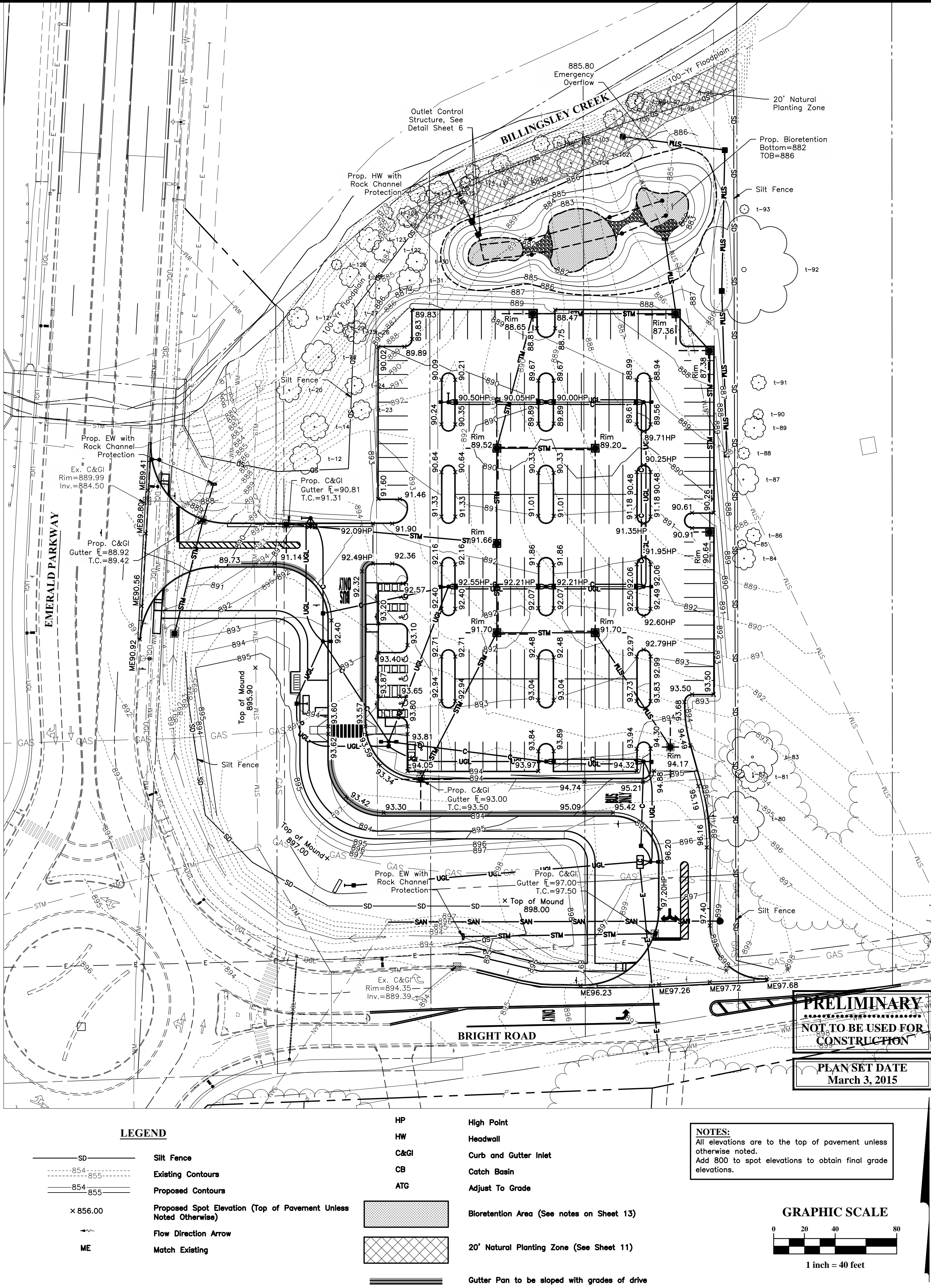
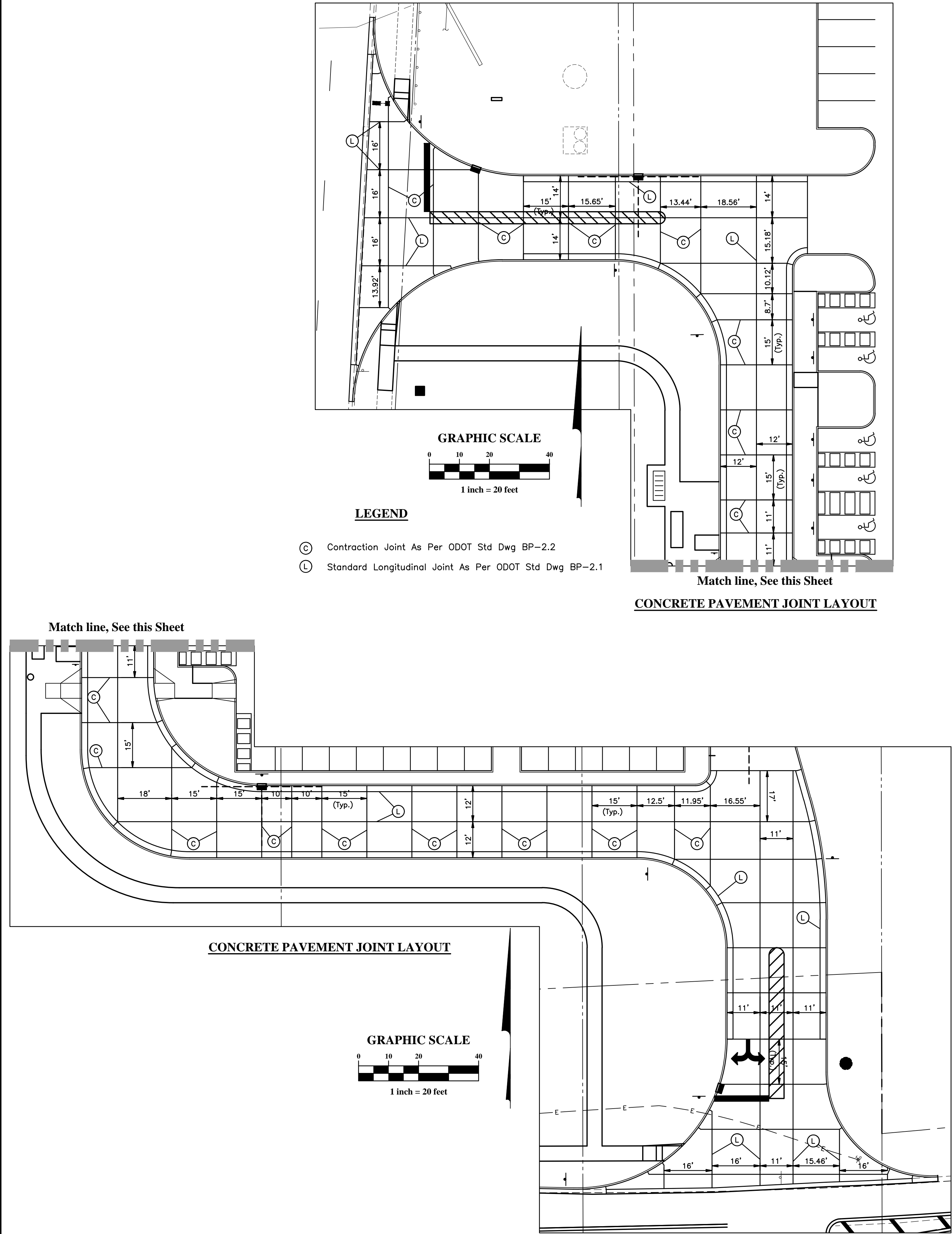
JOB NO.
2014-0588

SHEET
6/14


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CONSTRUCTION


PLAN SET DATE
March 3, 2015

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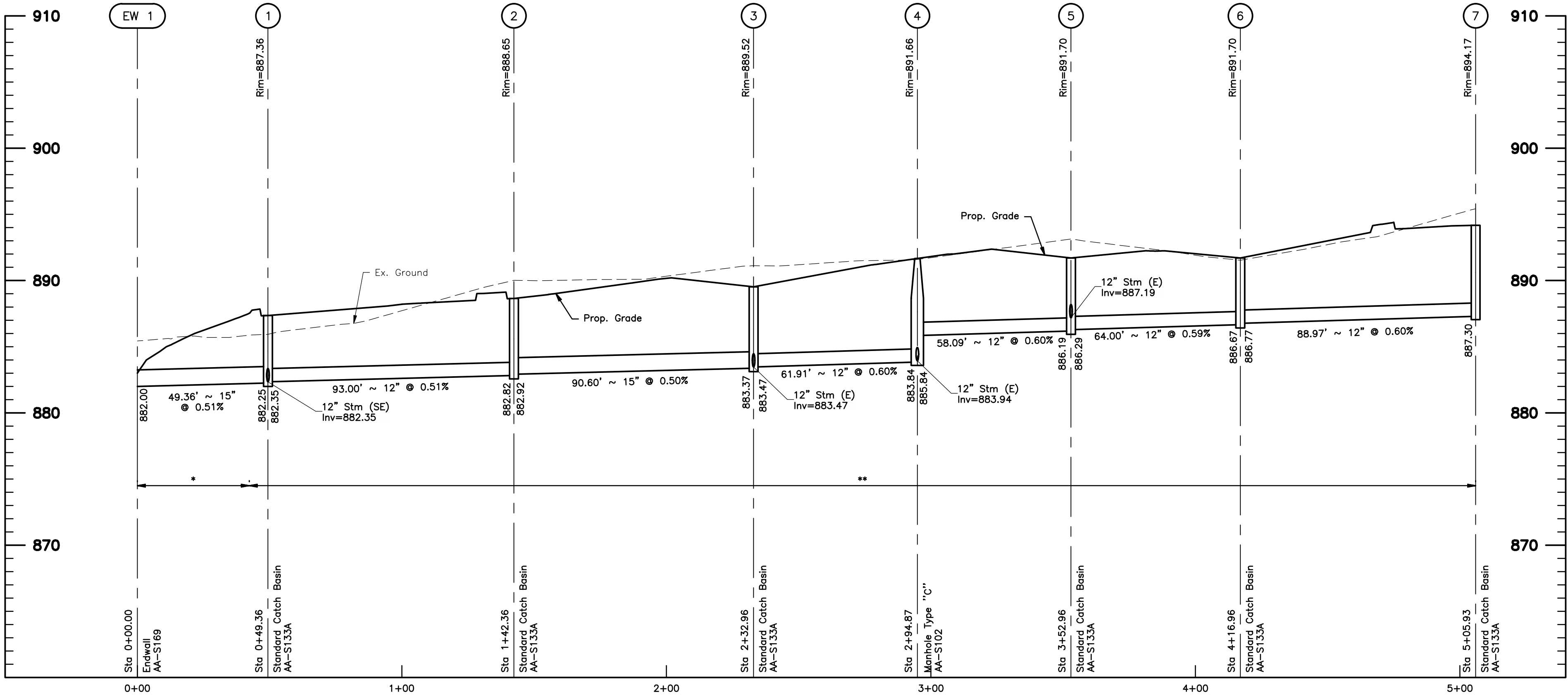


REVISIONS		
MARK	DATE	DESCRIPTION

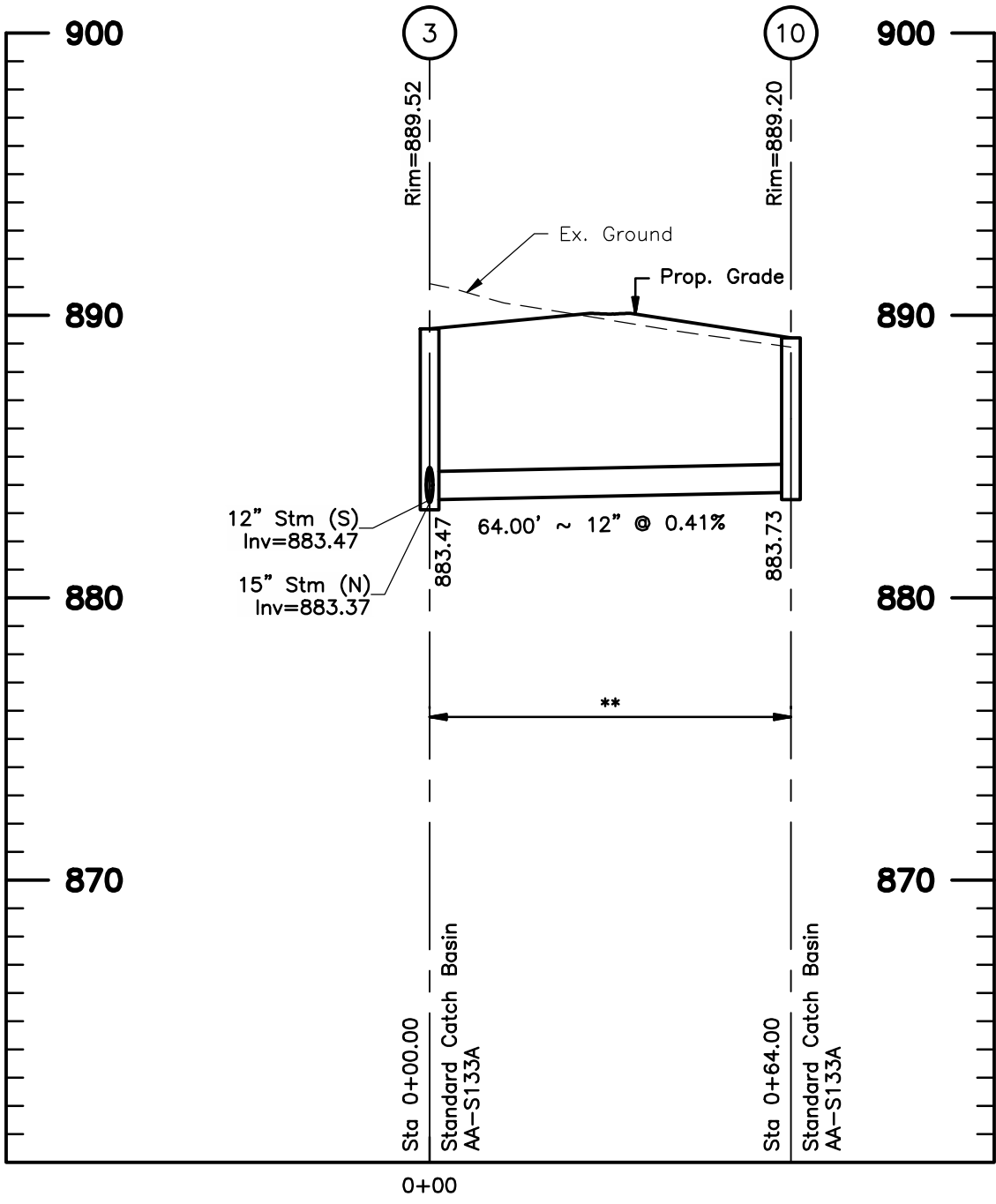
 City of Dublin	CITY OF DUBLIN, FRANKLIN COUNTY, OHIO	
	PRIVATE SITE IMPROVEMENT PLAN	
	FOR	
	COTA PARK AND RIDE	
	GRADING PLAN	

 EMHT Evans, Mechwart, Hamblen & Tilton, Inc. 5300 New Albany Road, Columbus, OH 43254 Phone: 614.775.4500 Toll Free: 888.775.3448 emht.com	DATE
	March 3, 2015
	SCALE
	1" = 40'
	JOB NO.
	2014-0588
	SHEET
	7/14

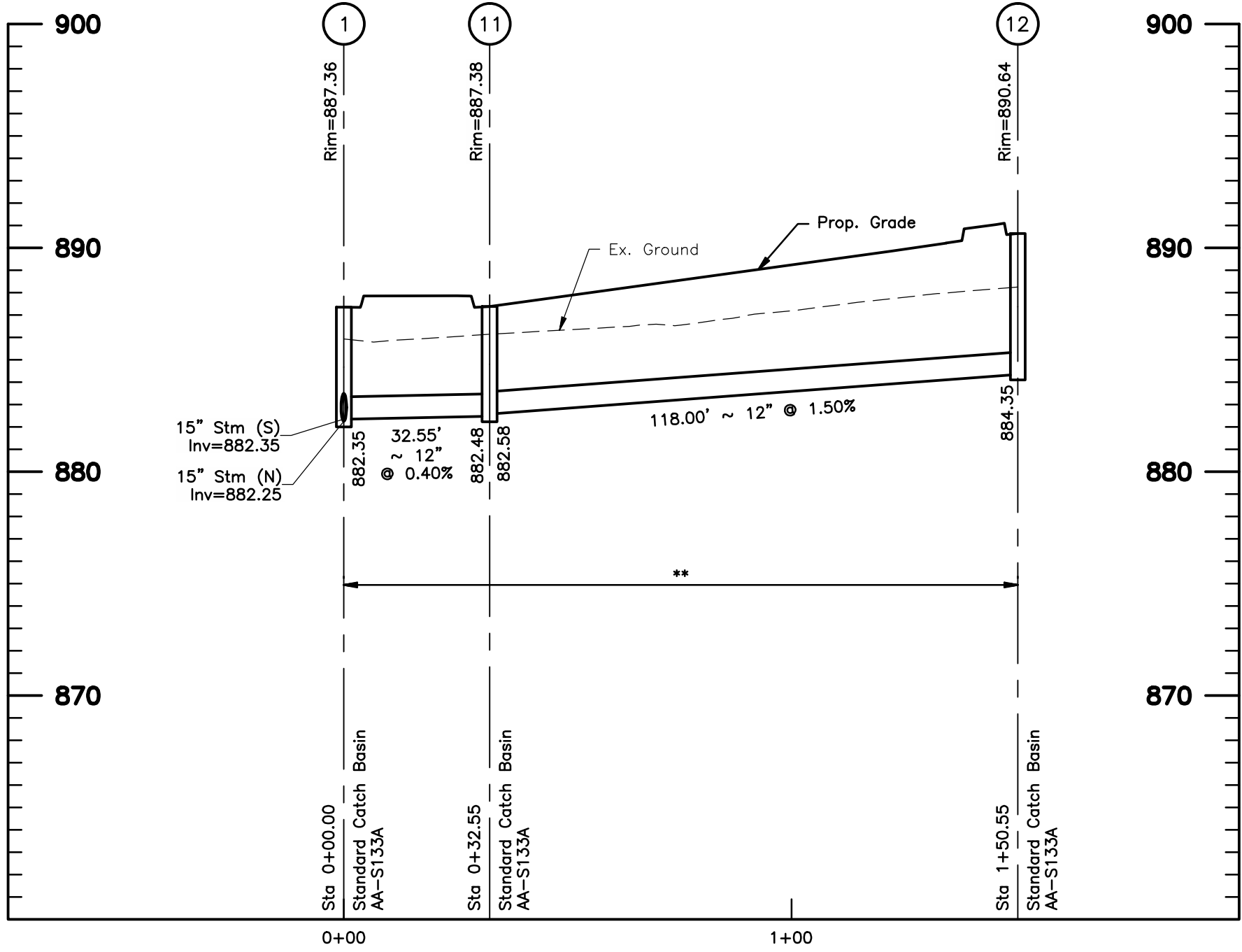
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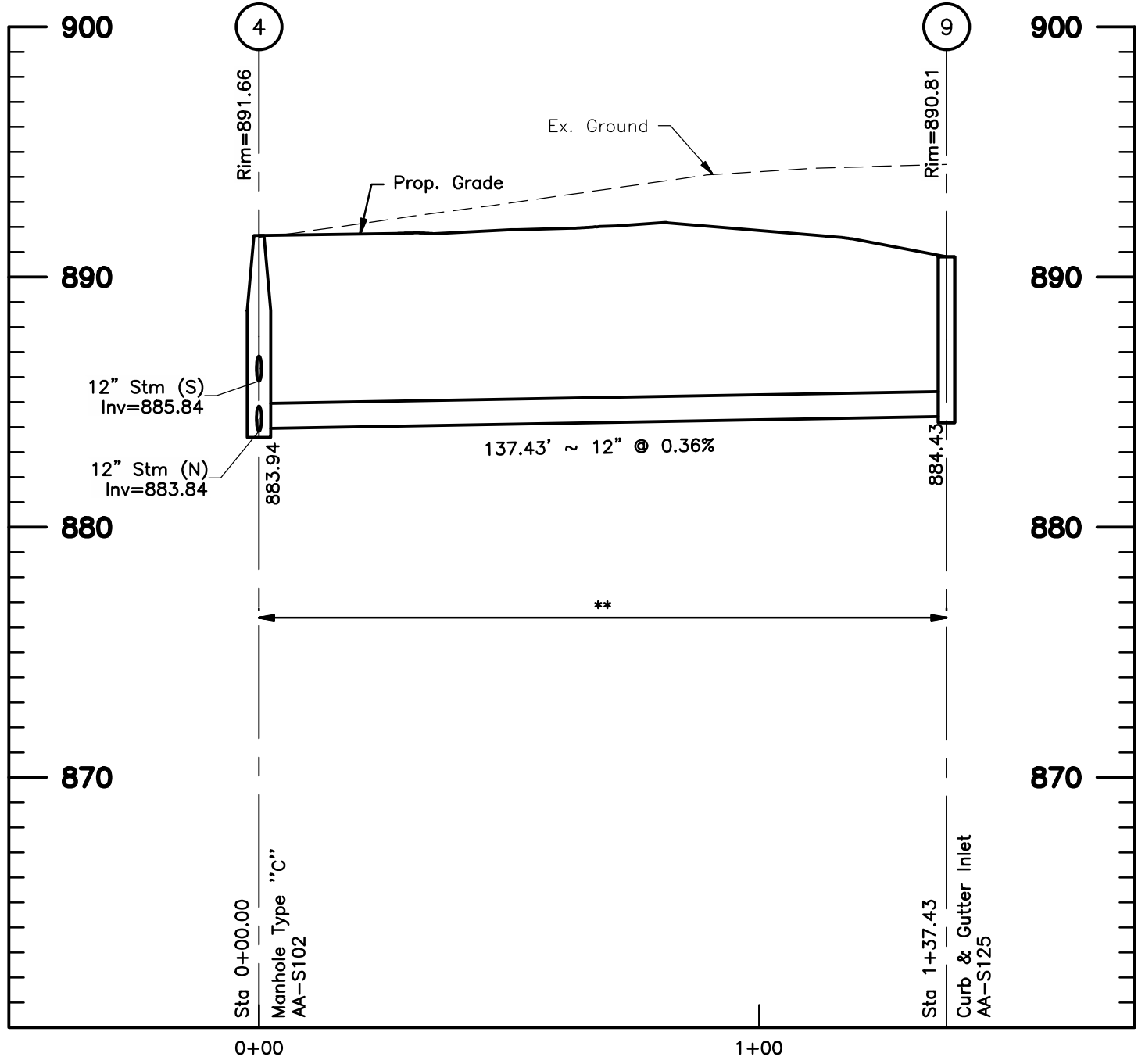
STORM PROFILE EW1-7
Horizontal Scale: 1"=30'
Vertical Scale: 1"=5'



STORM PROFILE 3-20
Horizontal Scale: 1"=30'
Vertical Scale: 1"=5'

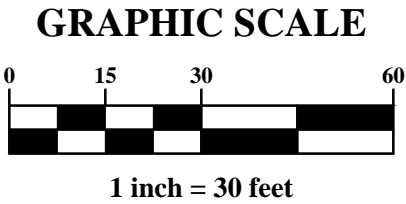


STORM PROFILE 1-12
Horizontal Scale: 1"=30'
Vertical Scale: 1"=5'



STORM PROFILE 3-9
Horizontal Scale: 1"=30'
Vertical Scale: 1"=5'

- NOTES**
- The Contractor shall field verify locations of any present existing utilities and report any conflicts discovered to the Engineer.
 - Proposed ground shown on the profiles indicates final elevations. All elevations in parking/pavement areas are final pavement elevations unless otherwise noted.
 - All headwalls are to include stone veneer per City of Dublin Standard Drawing ST-01.
 - All manhole lids are to be open grate lids.
 - Backfill shall be as indicated on the profiles and in accordance with the following:
 - * Compacted Backfill per CMSC Item 911.
 - ** Compacted Granular Backfill per CMSC Item 912.



PRELIMINARY
NOT TO BE USED FOR
CONSTRUCTION

PLAN SET DATE
March 3, 2015

REVISIONS

MARK	DATE	DESCRIPTION



CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
STORM SEWER PROFILES

EMHIT
Evans, Mechwart, Hamblen & Titon, Inc.
5900 New Albany Road, Columbus, OH 43254
Phone 614.775.6500 Toll Free 888.775.3448
emhit.com

DATE

March 3, 2015

SCALE

Horiz: 1" = 30'
Vert: 1" = 5'

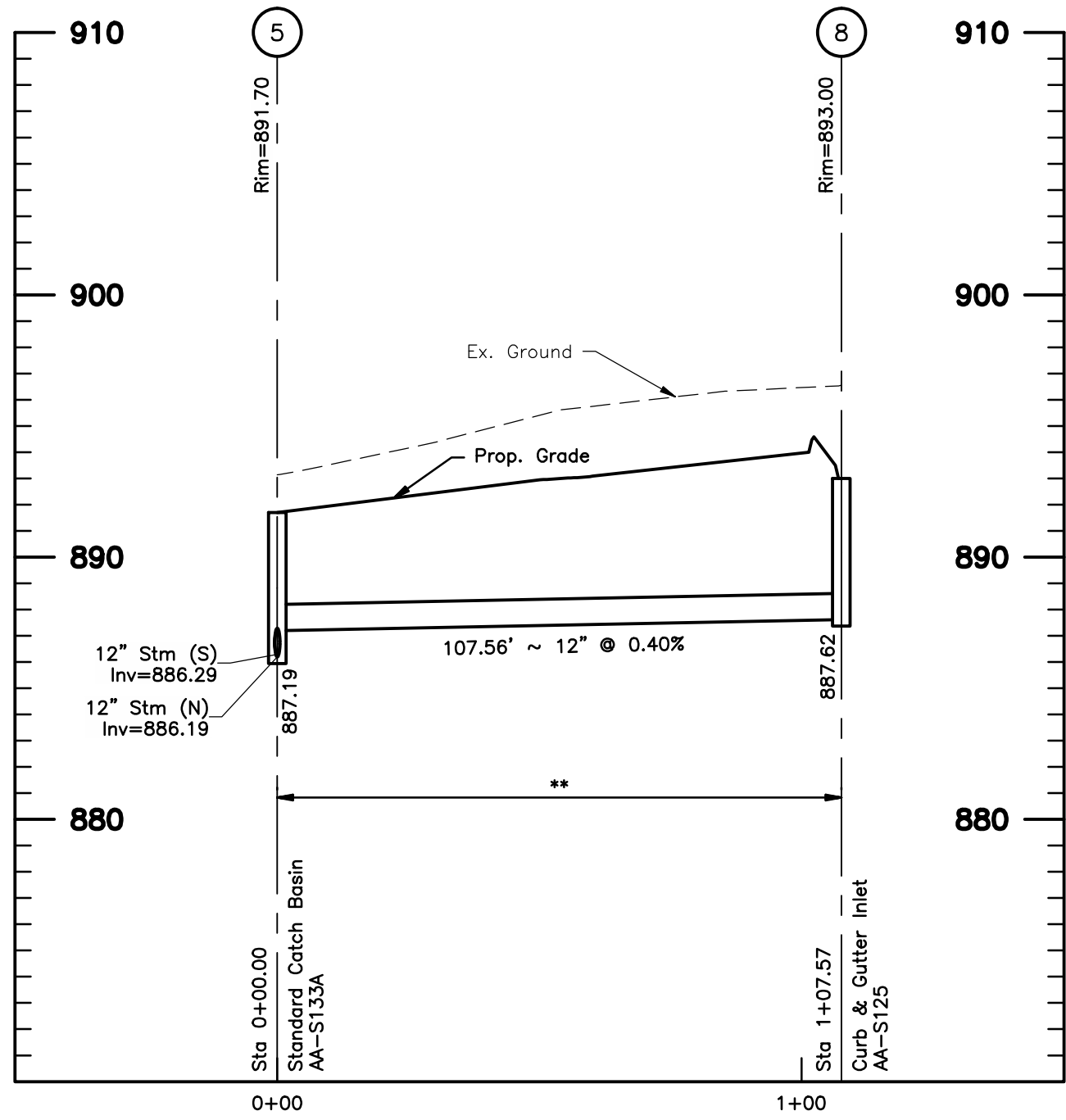
JOB NO.

2014-0588

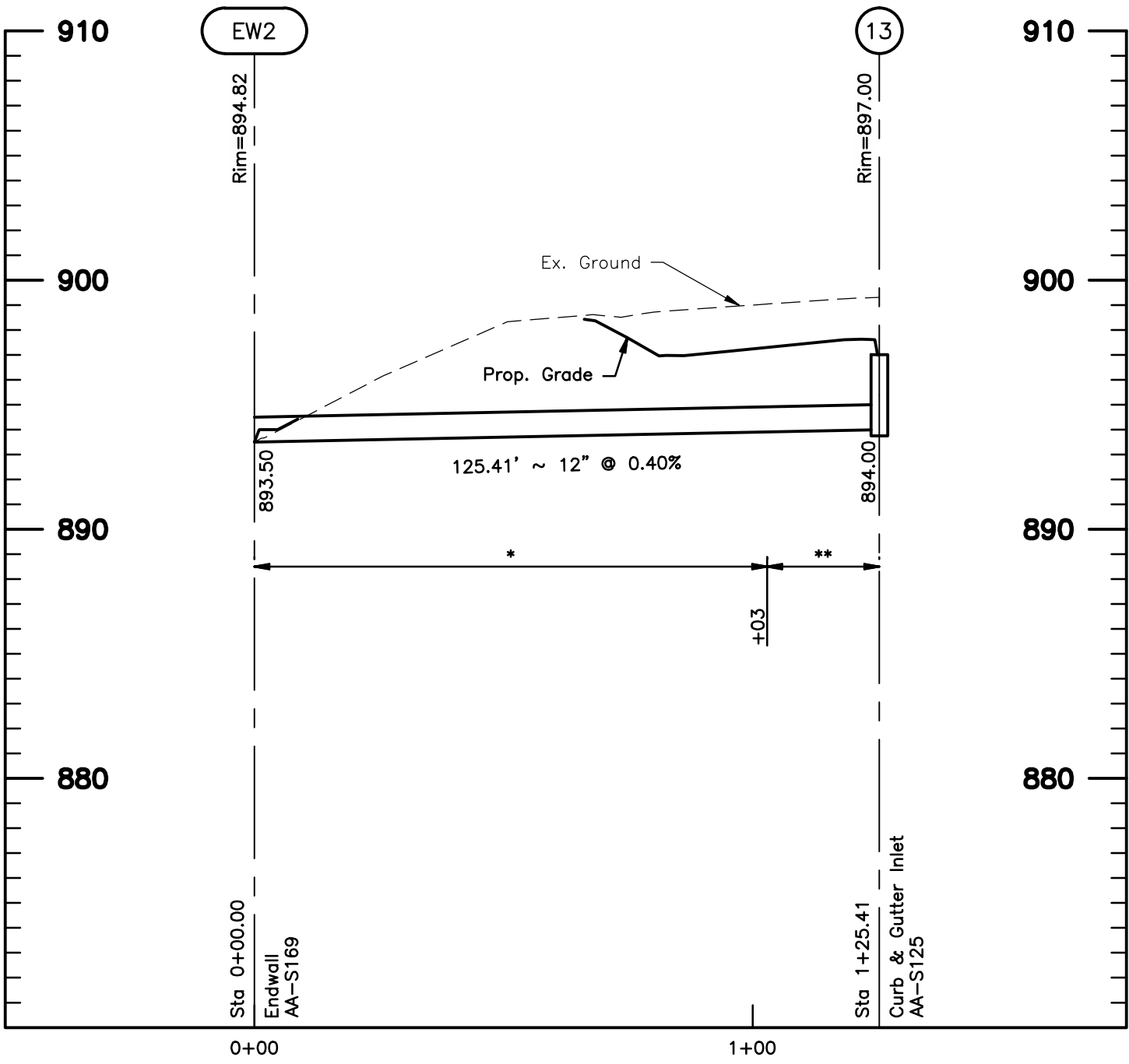
SHEET

8/14

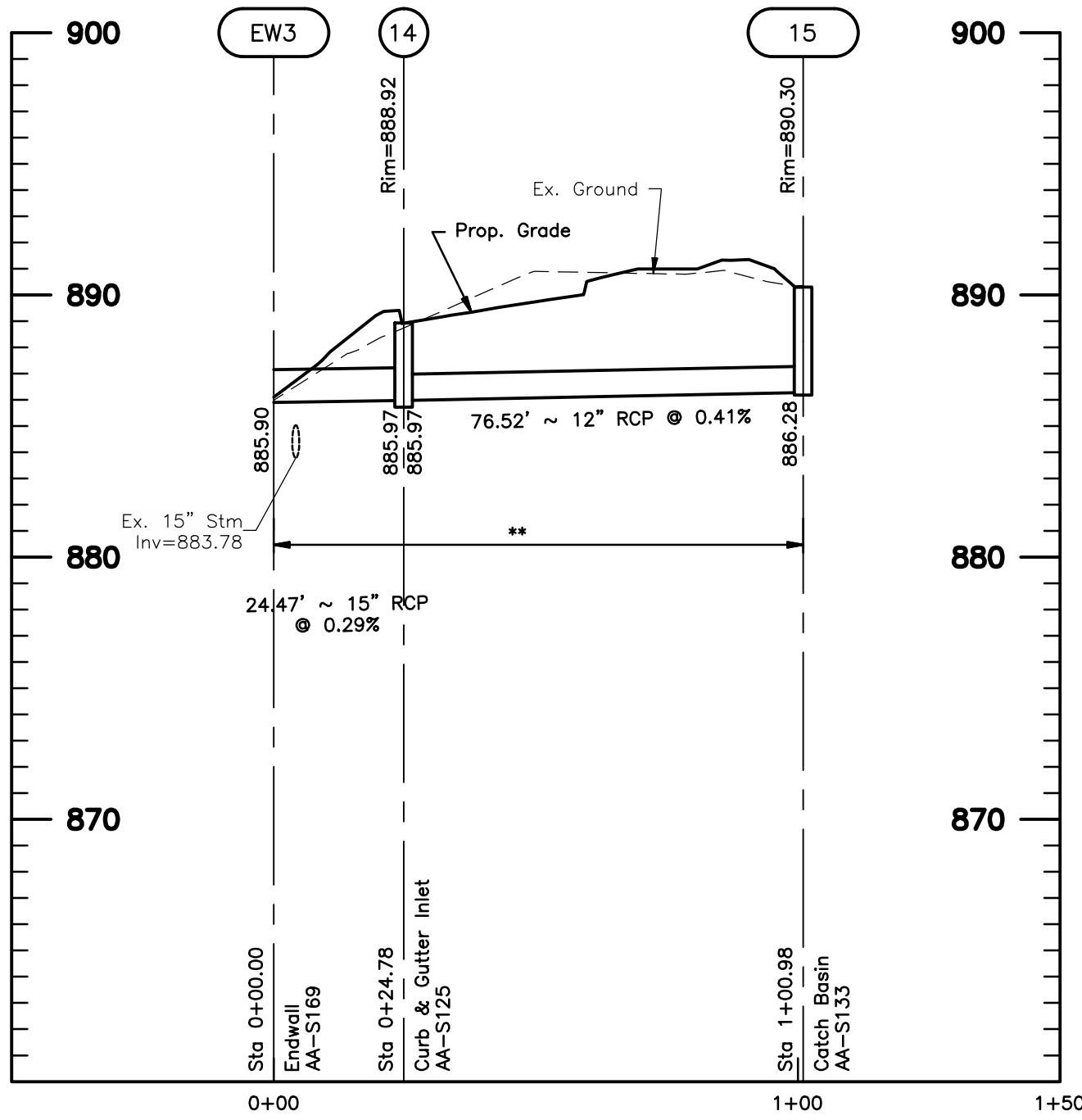
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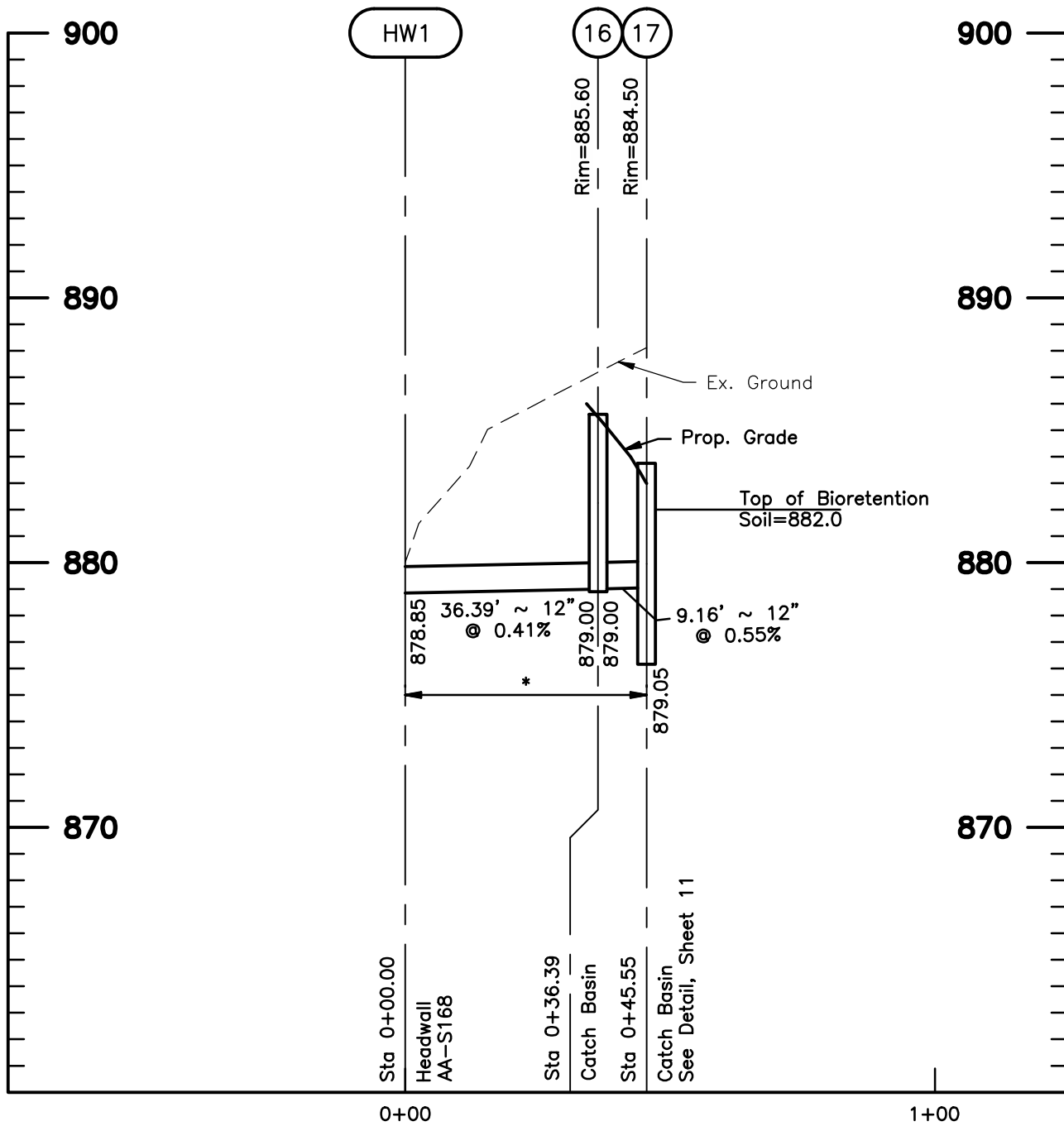
STORM PROFILE 5-8
Horizontal Scale: 1"=30'
Vertical Scale: 1"=5'



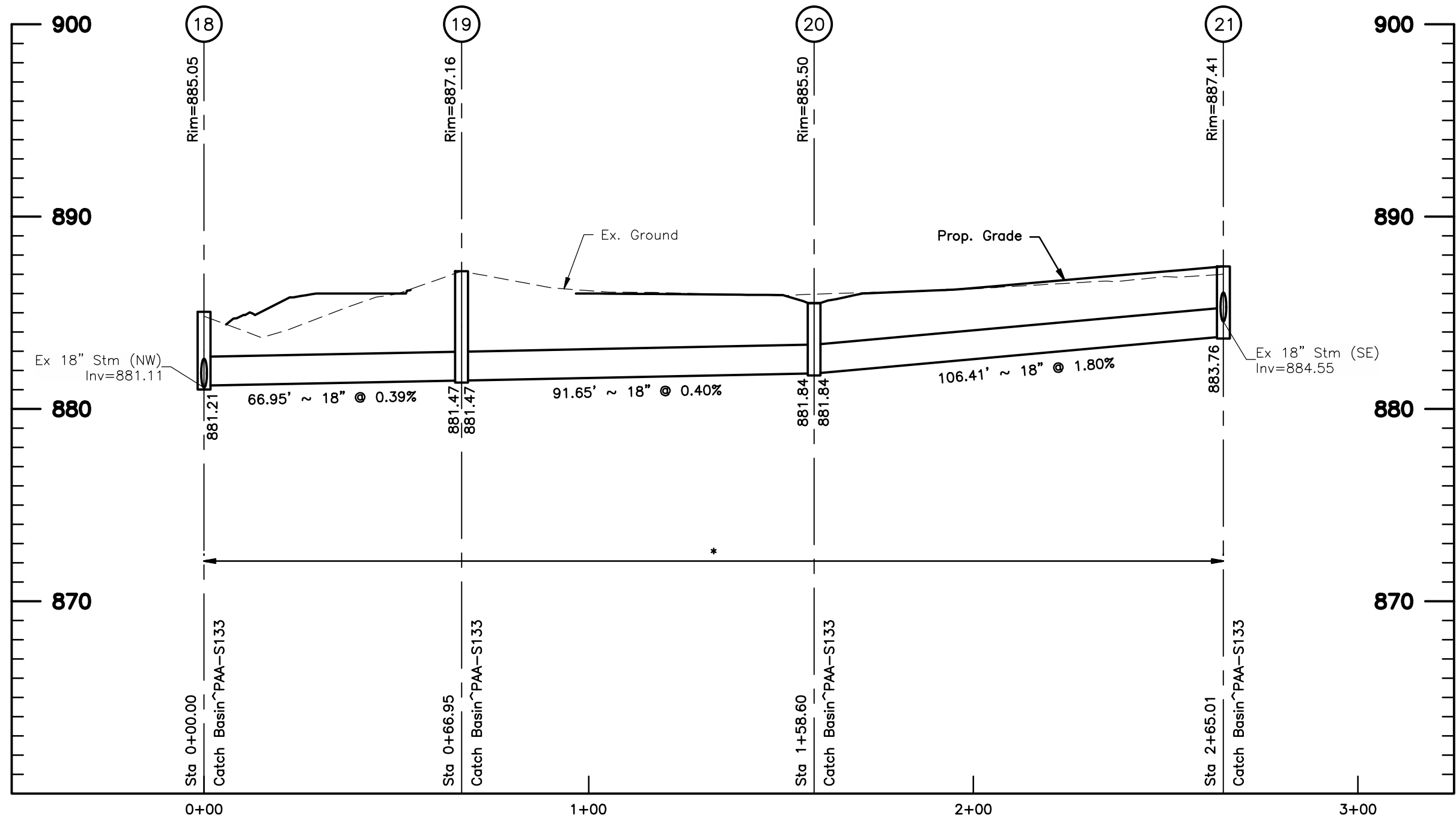
STORM PROFILE HW2-13
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Vertical Scale: 1"=5'



STORM PROFILE EW3-15
Horizontal Scale: 1"=30'
Vertical Scale: 1"=5'

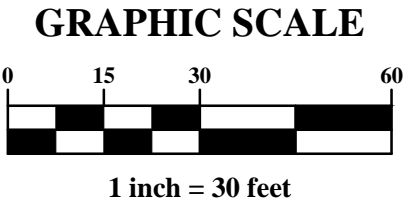


STORM PROFILE HW1-17
Horizontal Scale: 1"=30'
Vertical Scale: 1"=5'



STORM PROFILE 18-21
Horizontal Scale: 1"=30'
Vertical Scale: 1"=5'

- NOTES**
1. The Contractor shall field verify locations of any present existing utilities and report any conflicts discovered to the Engineer.
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 - * Compacted Backfill per CMSC Item 911.
 - ** Compacted Granular Backfill per CMSC Item 912.



PRELIMINARY
NOT TO BE USED FOR
CONSTRUCTION

PLAN SET DATE
March 3, 2015

REVISIONS	
MARK	DESCRIPTION



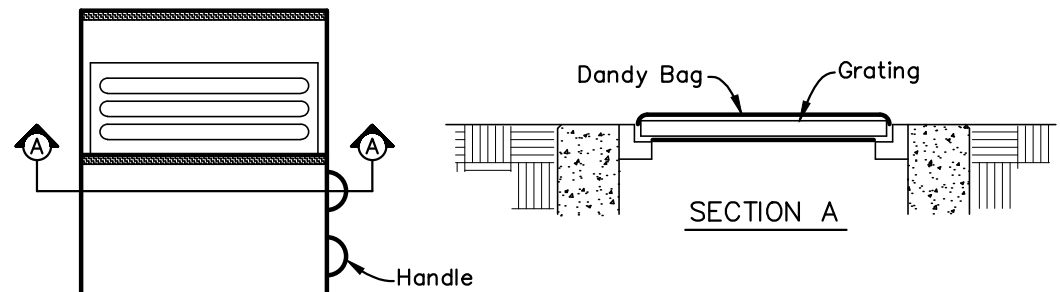
CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
STORM SEWER PROFILES



DATE
March 3, 2015
SCALE
Horiz: 1" = 30' Vert: 1" = 5'
JOB NO.
2014-0588
SHEET
9/14

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DANDY BAG SEDIMENT FILTER DETAIL



INSTALLATION:

Stand grate on end. Place Dandy Bag over grate. Roll grate over so that open end is up. Pull up slack. Tuck flap in. Be sure end of grate is completely covered by flap or Dandy Bag will not fit properly. Holding handles, carefully place Dandy Bag with grate inserted into catch basin frame so that red dot on the top of the Dandy Bag is visible.

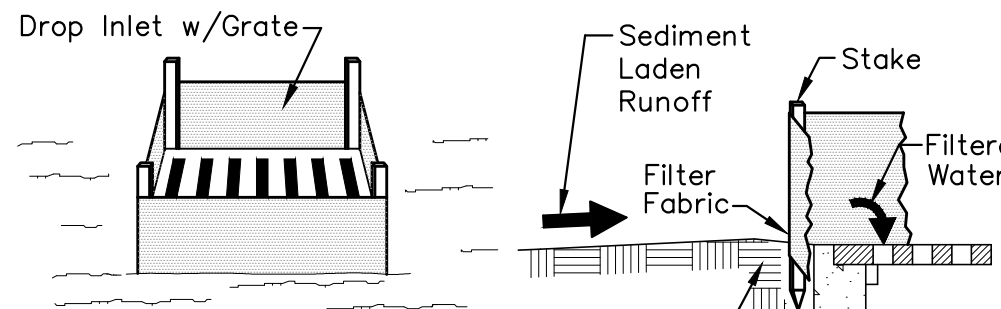
MAINTENANCE:

With a stiff bristle broom or square point shovel remove silt & other debris off surface after each event.

PROVIDE FOR THE FOLLOWING STRUCTURES:

Existing parking lot structures receiving flow from construction area.

FILTER FABRIC DROP INLET SEDIMENT FILTER DETAIL



Compacted Soil To Prevent Piping

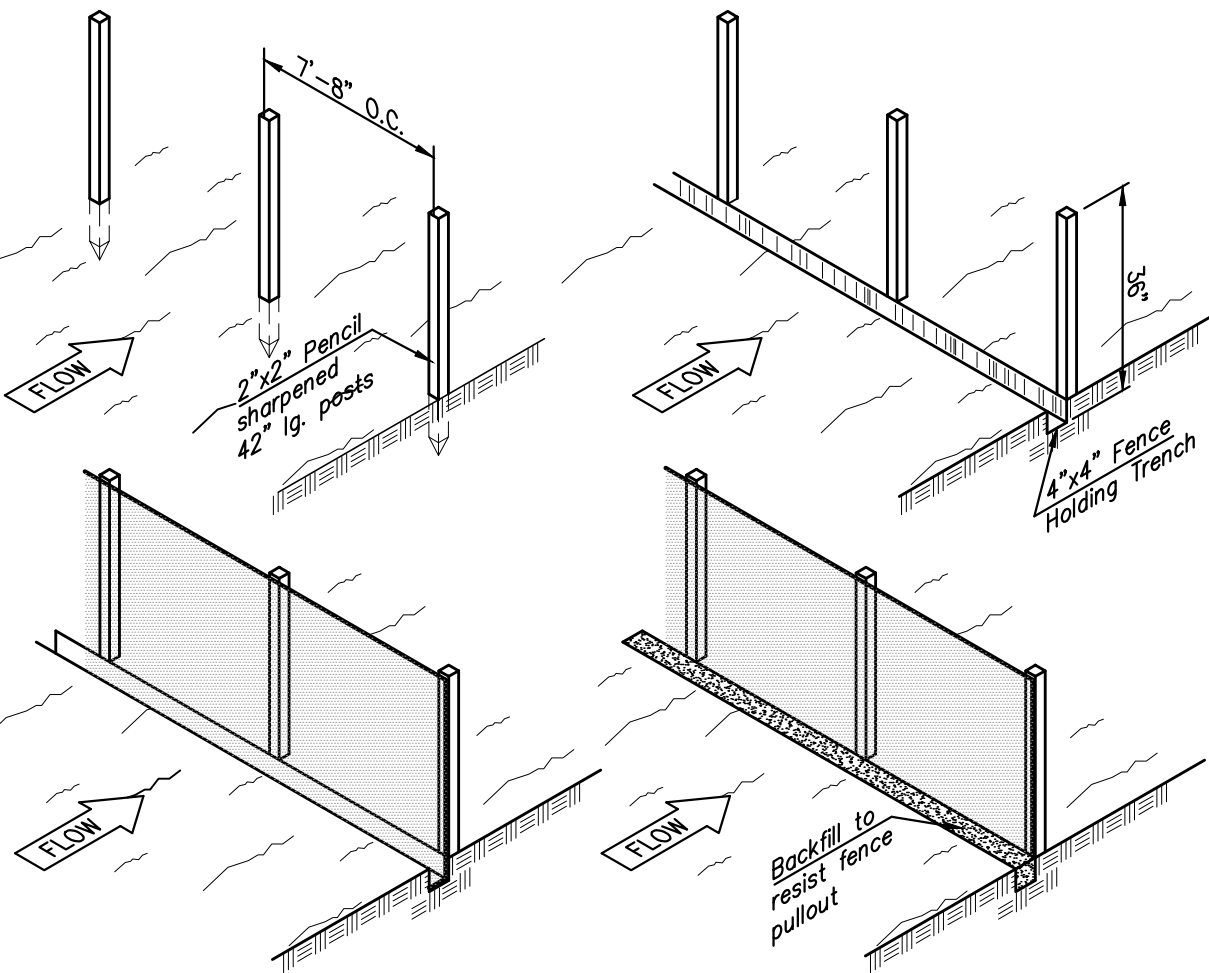
SPECIFIC APPLICATION:

This method of inlet protection is applicable where the inlet drains a relatively flat area (slopes no greater than 5 percent) where sheet or overland flows (not exceeding 0.5 cfs) are typical. This method shall not apply to inlets receiving concentrated flows, such as in street and highway medians.

PROVIDE FOR THE FOLLOWING STRUCTURES:

1, 4, 5, 6, 7

SEDIMENT FENCE BARRIER DETAIL



FABRIC PROPERTIES

VALUES

TEST METHOD

Grab Tensile Strength.....	90 lb. Minimum.....	ASTM 1682
Mullen Burst Strength.....	190 psi Minimum.....	ASTM 3786
Slurry Flow Rate.....	0.3 gal./min./ft ² Maximum	
Equivalent Opening Size.....	40-80.....	U.S. Std. Sieve CW-02215
Ultraviolet Radiation Stability.....	90% Minimum.....	ASTM-G-26

SILT FENCE:

This sediment barrier utilizes standard strength or extra strength synthetic filter fabrics. It is designed for situations in which only sheet or overland flows are expected.

MATERIAL PROPERTIES ARE:

- The height of a silt fence shall not exceed 36-inches (higher fences may impound volumes of water sufficient to cause failure of the structure).
- The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum of a 6 inch overlap, and securely sealed.
- Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12-inches). Wood posts will be a minimum of 32" long when extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet.
- A trench shall be excavated approximately 4-inches wide and 6 inches deep along the line of posts and upslope from the barrier.
- When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least 1-inch long, tie wires or hog rings. The wire shall extend into the trench a minimum of 2-inches and shall not extend more than 36-inches above the original ground surface.
- The standard strength filter fabric shall be stapled or wired to the fence, and 8-inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36-inches above the original ground surface.
- Filter fabric shall not be stapled to existing trees.
- When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of Item No. 6 applying.
- The trench shall be backfilled and soil compacted over the filter fabric. Silt fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.
- Silt fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
- To prevent water ponded by the silt fence from flowing around the ends, each end shall be constructed upslope so that the ends are at a higher elevation.

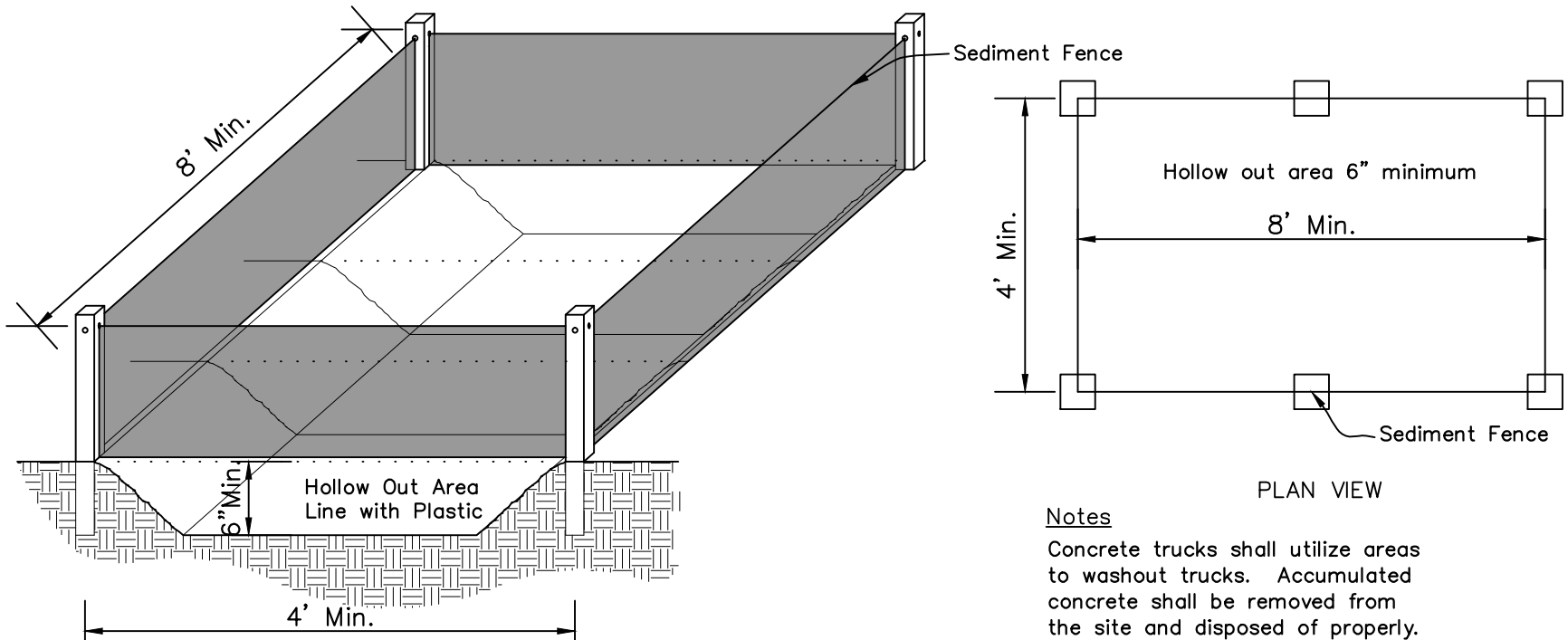
MAINTENANCE:

Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly.

Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.

Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

CONCRETE WASHOUT AREA

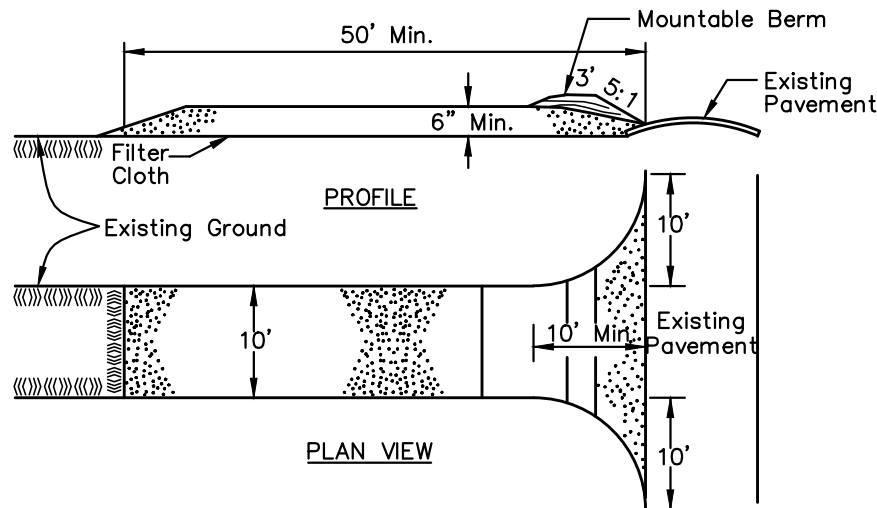


Notes

Concrete trucks shall utilize areas to washout trucks. Accumulated concrete shall be removed from the site and disposed of properly.

Contractor to determine location of Concrete Washout Area.

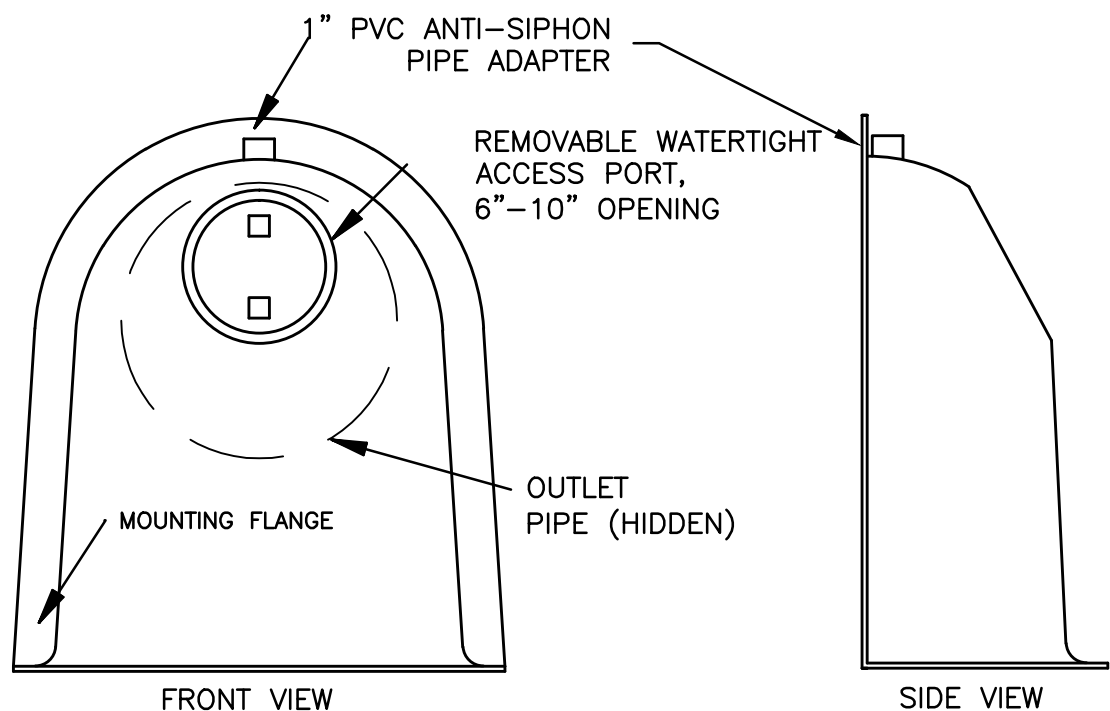
STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATIONS

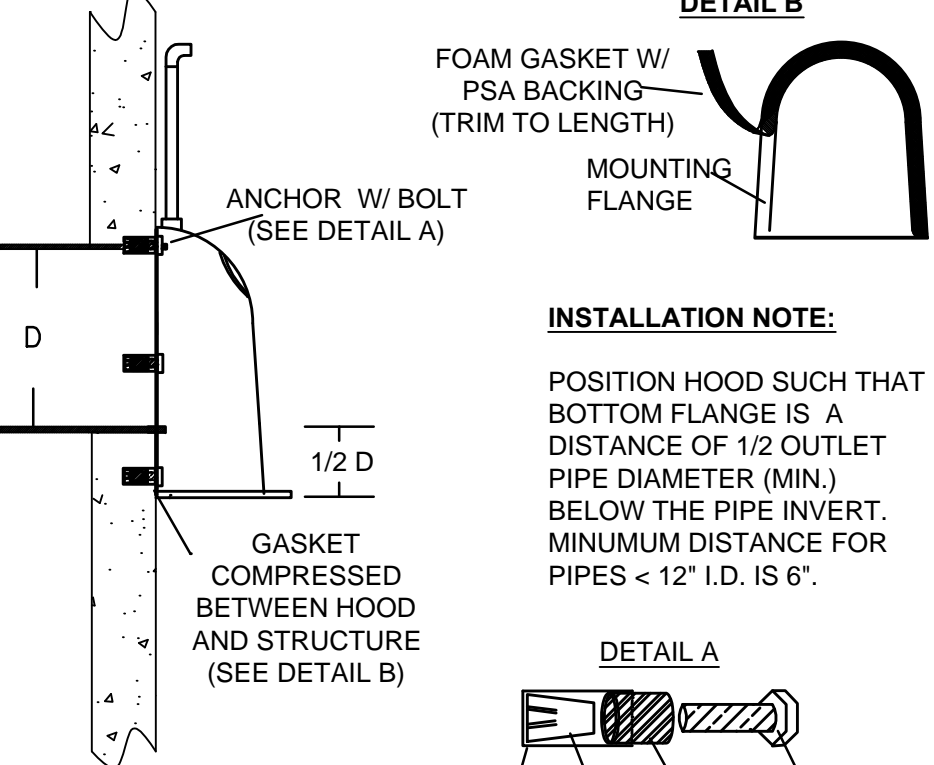
- Stone Size - Use 2 inch stone, or reclaimed or recycled concrete equivalent.
- Length - As required.
- Thickness - Not less than six (6) inches.
- Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
- Filter Cloth - will be placed over the entire area prior to placing of stone.
- Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
- Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
- Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public right-of-ways. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.

HOOD CONFIGURATION DETAIL



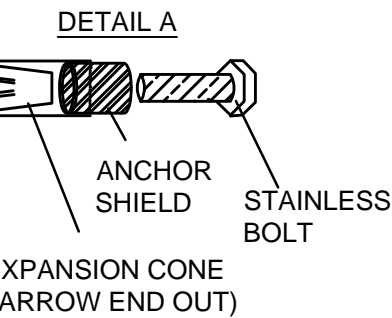
OIL-WATER-DEBRIS SEPARATION HOOD

INSTALLATION DETAIL

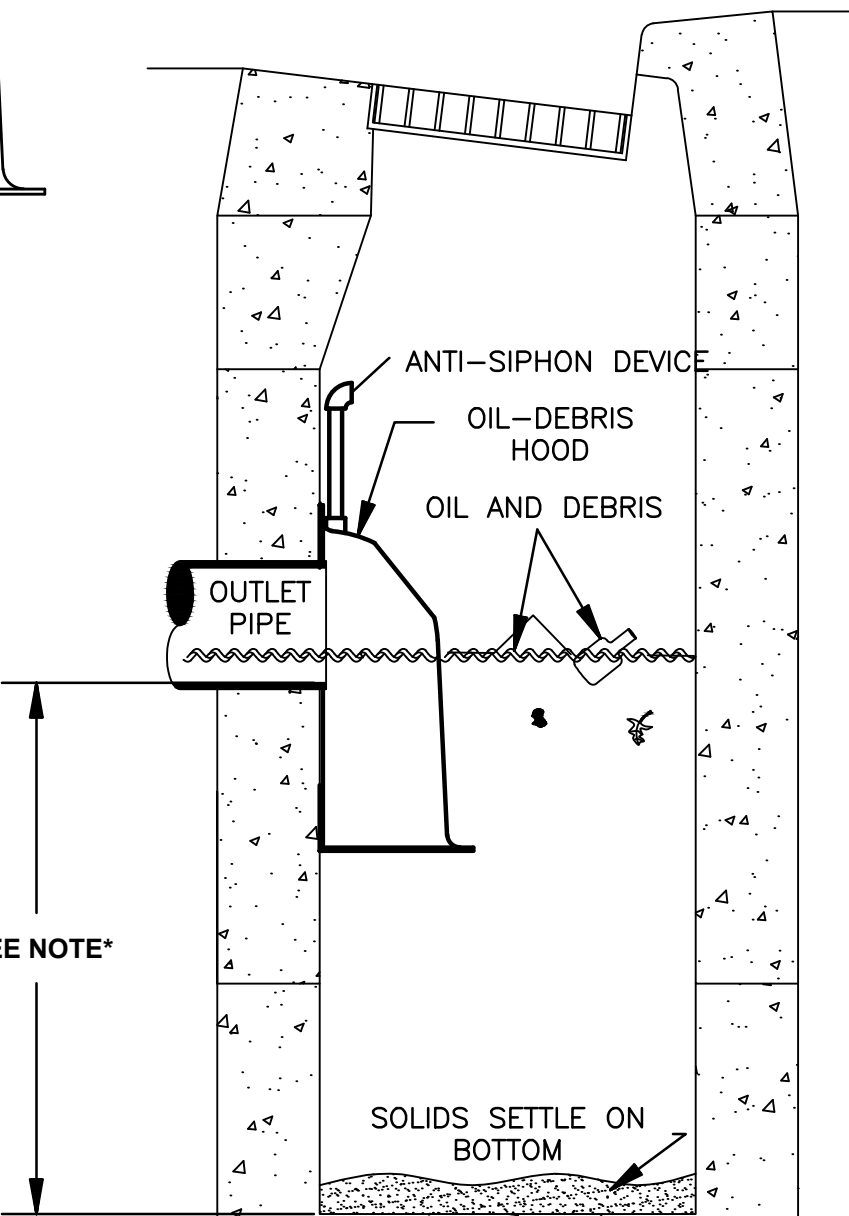


INSTALLATION NOTE:

POSITION HOOD SUCH THAT BOTTOM FLANGE IS A DISTANCE OF 1/2 OUTLET PIPE DIAMETER (MIN.) BELOW THE PIPE INVERT. MINIMUM DISTANCE FOR PIPES < 12" I.D. IS 6".



TYPICAL INSTALLATION



*NOTE: SUMP DEPTH OF 36" MIN. FOR < OR= 12" DIAM. OUTLET. FOR OUTLETS >OR= 15", DEPTH = 2.5-3X DIAM.

MATERIAL AND DESIGN NOTES:

- ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
- ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
- THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
- THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
- THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
- THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND THE PIPE SHALL BE TRIMMED FLUSH TO WALL.
- THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
- INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE:

- INSTALLATION INSTRUCTIONS
- PVC ANTI-SIPHON VENT PIPE AND ADAPTER
- OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
- 3/8" STAINLESS STEEL BOLTS
- ANCHOR SHIELDS

* REPRESENTATIVE EXAMPLE CAN BE VIEWED AT WWW.STORMWATERBMPS.COM OR FOR MORE INFORMATION CALL 800-504-8008

(No Scale)

EROSION & SEDIMENT CONTROL NARRATIVE

Plan Engineer: Evans, Mechwart, Hambleton & Tilton, Inc.
5500 New Albany Road
Columbus, OH 43054
Phone: (614) 775-4500
Fax: (614) 775-4800

Owner's Representative: City of Dublin
Ken Richardson
5800 Shier Rings Road
Dublin, OH 43016
Phone: (614) 410-4631

On-Site Contact: City of Dublin
Ken Richardson
5800 Shier Rings Road
Dublin, OH 43016
Phone: (614) 410-4631

Existing Site Conditions: The proposed development is located on approximately 3.3± acres within an existing site consisting of a mown grassy field with interspersed clusters of trees and shrubs. The existing topography of the site generally slopes from the southwest towards the northeast.

Existing Site Drainage Condition: Stormwater run off generated by the site discharges into Billingsley Creek.

Proposed Site Drainage Condition: The stormwater runoff generated by the site under post-developed conditions will be collected in catch basins and piped to a retention basin and released to Billingsley Creek.

Adjacent Areas: The site is located near adjacent to the existing Emerald Parkway and Bright Road roundabout.

Critical Areas: The most critical areas related to implementing the erosion and sediment control are the northern and eastern boundaries.

StormWater Pollution Prevention Measures: Approximately 2.5± acres of land will be disturbed during the construction of this project. Stormwater pollution prevention will be accomplished through the implementation of the BMP's detailed on this sheet.

Sequence of Construction:

- Install the tree protection fence and erosion control devices.
- Relocate existing utilities, remove trees, and demolish pavement, walks and curbs.
- Perform mass earthwork activities and begin building foundations. Install temporary seeding as needed.
- Install storm sewer and other utilities.
- Construct remainder of building.
- Fine grade the site and install paving and landscape.
- Once site is stabilized, remove tree protection and erosion control devices.

CONTRACTOR RESPONSIBILITY: Details have been provided on the plans in an effort to help the Contractor provide erosion and sedimentation control. The details shown on the plan shall be considered a minimum. Additional or alternate details may be found in the O.D.N.R. Manual "Rainwater and Land Development." The Contractor shall be solely responsible for providing necessary and adequate measures for proper control of erosion and sediment runoff from the site along with proper maintenance and inspection in compliance with the NPDES General Permit for Stormwater Discharges Associated with Construction Activity.

All Erosion & Sediment Control practices are subject to Field Modification at the direction of the City of Dublin and/or Ohio EPA.

CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
EROSION CONTROL DETAILS

EMH
Evans, Mechwart, Hambleton & Tilton, Inc.
5500 New Albany Road, Columbus, OH 43054
Phone: (614) 775-4500 Toll Free: 888-775-3448
emht.com

DATE
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SCALE
1" = 40'

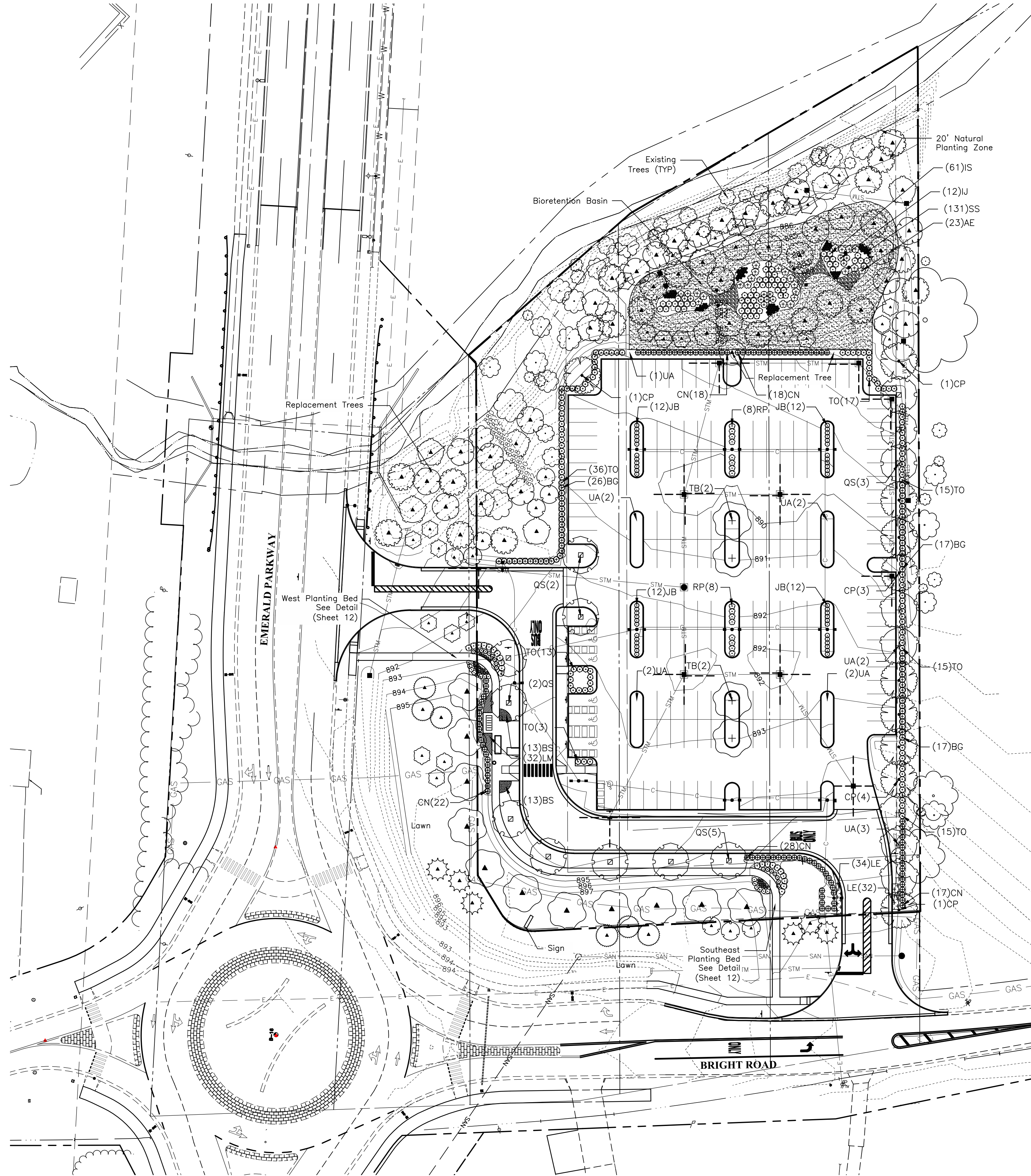
JOB NO.
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SHEET
10/14

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LANDSCAPE CALCULATIONS

153.133.A.5 - VEHICULAR USE AREA PERIMETER REQUIRES 1 TREE PER 40 LF OF VUA BOUNDARY AND 3.5' HT HEDGE
±1360 / 40 = 34 TREES REQUIRED
15 TREES PROVIDED AND EXISTING TREES TO REMAIN
3.5' HT HEDGE PROVIDED

153.133.B.2 - FOR EACH 100 SF OR FRACTION THEREOF, OF VEHICULAR USE AREA, A MINIMUM TOTAL OF 5 SQUARE FEET OF LANDSCAPED AREA SHALL BE PROVIDED (5%)
±77,300 SF x .05 = ±3,865 SF REQUIRED
= ±4,894 SF PROVIDED

153.133.B.3.A - MINIMUM OF 1 TREE FOR EVERY 5,000 SF OF GROUND COVERAGE. TREES MUST BE AT LEAST 2" OF CALIPER AT INSTALLATION
1 TREE PER 5000 SF=
±77,300 SF / 5000 = 16 TREES

153.134 - EXISTING STREET TREES TO REMAIN

153.146.A - EXISTING TREES TO BE REMOVED = 795 DBH
REPLACEMENT TREES = 287.5 CALIPER INCHES
(INCLUDES 2.5" CALIPER PER EVERGREEN TREE)
507.5 CALIPER INCHES NOT PROVIDED

PLANT SCHEDULE

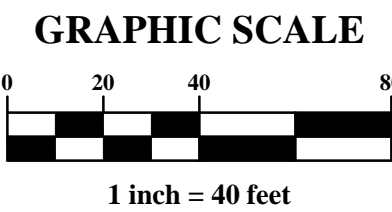
TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	
CP	10	Celtis occidentalis 'Prairie Pride'	Prairie Pride Hackberry	2" Cal.	B&B	
QS	12	Quercus shumardii	Shumard Oak	2" Cal.	B&B	
TB	4	Tilia americana 'Boulevard'	Boulevard Linden	2" Cal.	B&B	
UA	5	Ulmus parvifolia	Lacebark Elm	2" Cal.	B&B	
REPLACEMENT TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	
AA	14	Amelanchier canadensis 'Tradition'	Tradition Serviceberry	2.5" Cal.	B&B	
LT	15	Liriodendron tulipifera	Tulip Tree	2.5" Cal.	B&B	
MS	9	Malus x 'Spring Snow'	Spring Snow Crab Apple	2.5" Cal.	B&B	
NW	18	Nyssa sylvatica 'Wildfire'	Wildfire Black Gum	2.5" Cal.	B&B	
PA	6	Picea abies	Norway Spruce	6' Ht.	B&B	
PG	6	Picea glauca	White Spruce	6' Ht.	B&B	
QB	24	Quercus bicolor	Swamp White Oak	2.5" Cal.	B&B	
SI	12	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	2.5" Cal.	B&B	
TR	11	Tilia americana 'Redmond'	Redmond American Linden	2.5" Cal.	B&B	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	
AM	21	Aronia melanocarpa 'Autumn Magic'	Autumn Magic Black Chokeberry	#5	Cont.	
BG	60	Buxus x 'Green Gem'	Green Gem Boxwood	24" Ht.	Cont.	
CN	103	Chamaecyparis obtusa 'Nana'	Dwarf Hinoki False Cypress	24" Ht.	Cont.	
JB	48	Juniperus sabina 'Buffalo'	Buffalo Juniper	18" Spr.	Cont.	
RP	16	Rosa Meidiland series	Meidiland Rose	24" Spr.	Cont.	
TO	114	Thuja occidentalis 'Woodwardii'	Woodward Globe Arborvitae	24" Ht.	B&B	
BIORETENTION PLANTS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	
AE	23	Aronia melanocarpa 'Elate'	Glossy Black Chokeberry	36" Ht.	B&B	
IJ	12	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry (Male)	30" Ht.	B&B	
IS	61	Ilex verticillata 'Shaver'	Shaver Winterberry (Female)	30" Ht.	B&B	
SS	131	Schizachyrium scoparium 'The Blues'	The Blues Little Bluestem	#2	Cont.	
PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	
CM	26	Coreopsis verticillata 'Moonbeam'	Moonbeam Coreopsis	#2	Cont.	
PL	14	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage	#2	Cont.	
SA	16	Rudbeckia hirta	Black-eyed Susan	#2	Cont.	
PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING
BS	26	Baptisia sphaerocarpa 'Screaming Yellow'	Screaming Yellow False Indigo	#2	Cont.	24" o.c.
LM	32	Lavandula a. 'Munstead Strain'	Munstead Lavender	#2	Cont.	24" o.c.
LE	66	Stachys byzantina	Lamb's Ear	#2	Cont.	18" o.c.
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	
SOD	2,914 sf	Festuca arundinacea	Turf-type Tall Fescue Sod			

NOTE:
• TREES REQUIRED FOR PARKING LOT ARE INCLUDED IN ABOVE SCHEDULE
• DO NOT MOW SODDED AREA OF BIORETENTION BASIN AFTER SOD ESTABLISHMENT

PLANT LEGEND: REPLACEMENT TREES

REPLACEMENT TREES	BOTANICAL NAME	COMMON NAME
	Amelanchier canadensis 'Tradition'	Tradition Serviceberry
	Liriodendron tulipifera	Tulip Tree
	Malus x 'Spring Snow'	Spring Snow Crab Apple
	Nyssa sylvatica 'Wildfire'	Wildfire Black Gum
	Picea abies	Norway Spruce
	Picea glauca	White Spruce
	Quercus bicolor	Swamp White Oak
	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac
	Tilia americana 'Redmond'	Redmond American Linden

NOTE:
• REPLACEMENT TREE QUANTITIES INCLUDED IN ABOVE SCHEDULE



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PLAN SET DATE
MARCH 3, 2015

REVISIONS

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City of Dublin

CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
LANDSCAPE PLAN

EMH
Evans, Meacham, Hamilton & Horn, Inc.
5900 New Albany Road, Columbus, OH 43254
Phone: 614.775.4500 Toll Free: 888.775.3448
emh.com

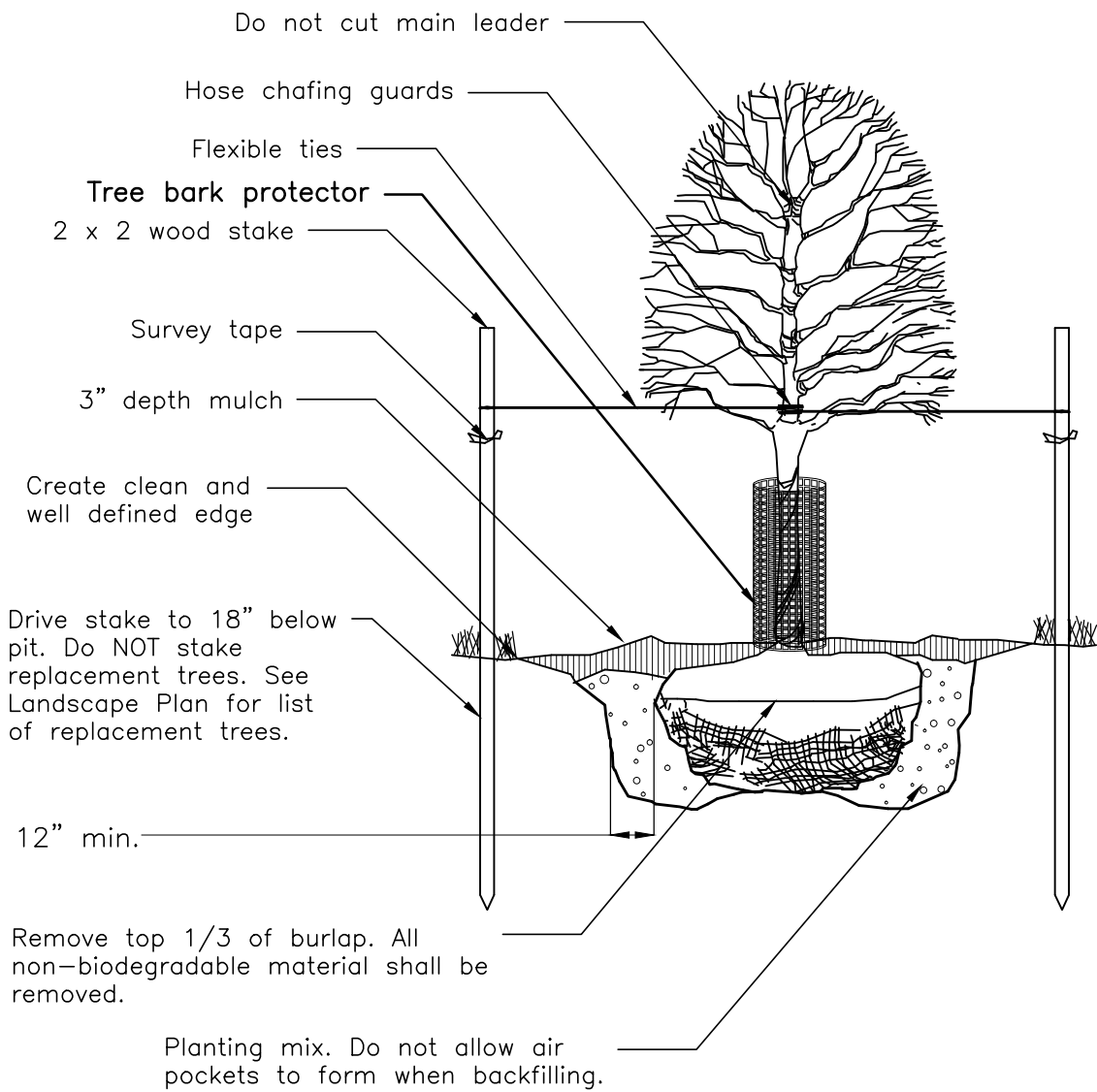
DATE
MARCH 3, 2015

SCALE
1" = 40'

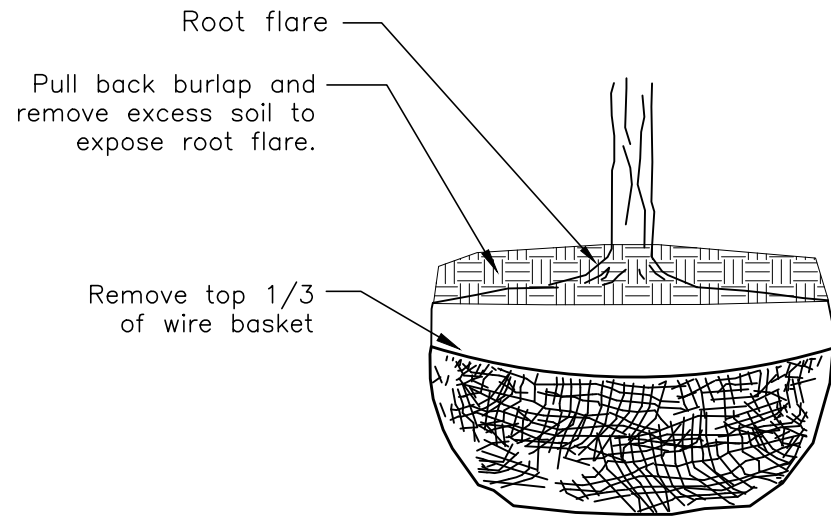
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SHEET
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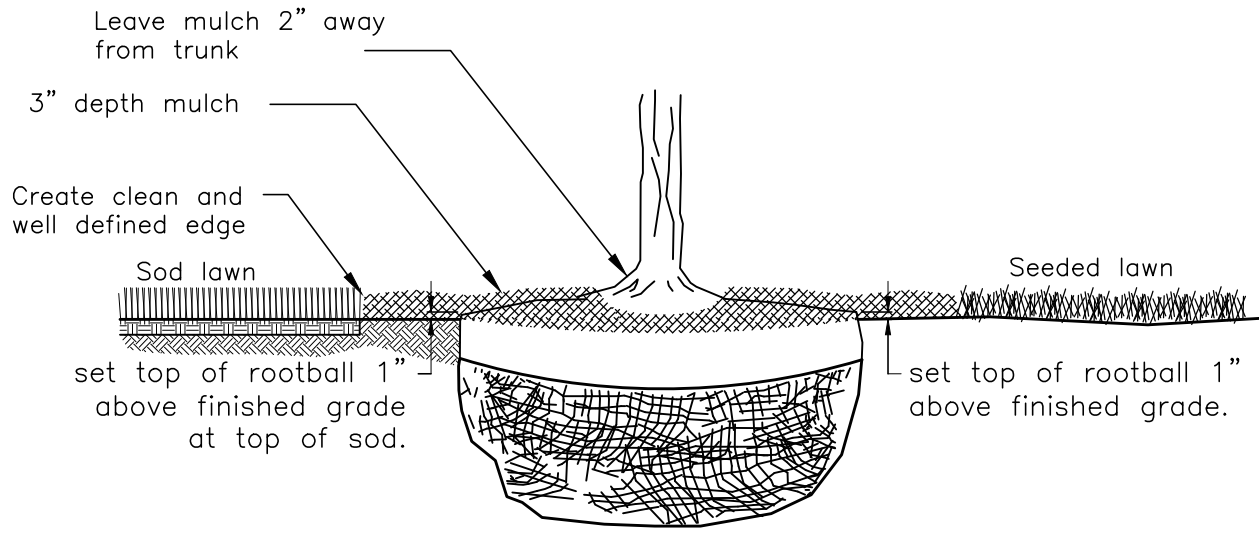
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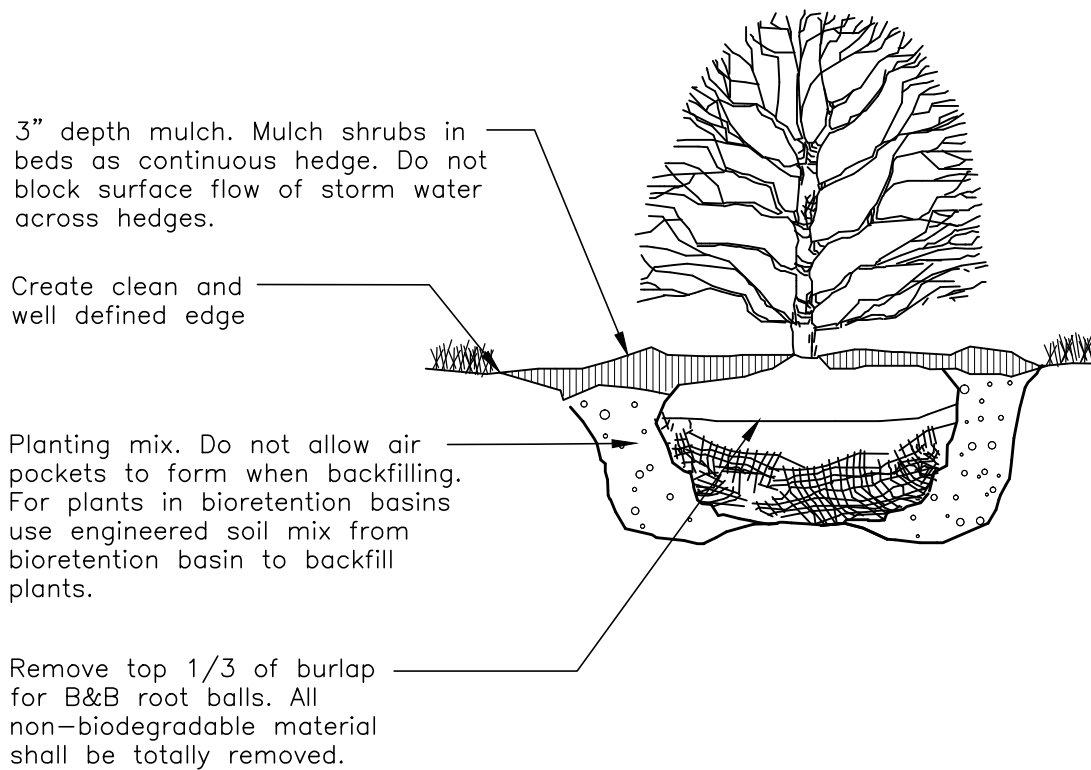
Deciduous Tree Planting
No Scale



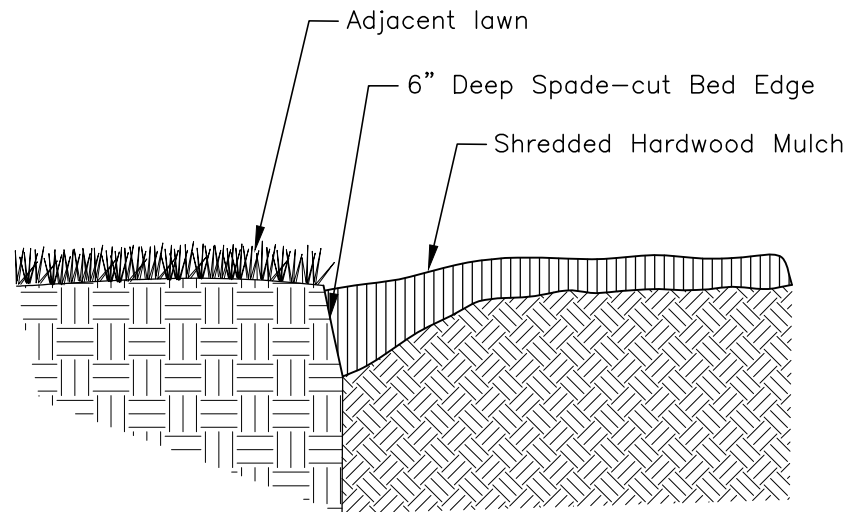
Rootball Preparation
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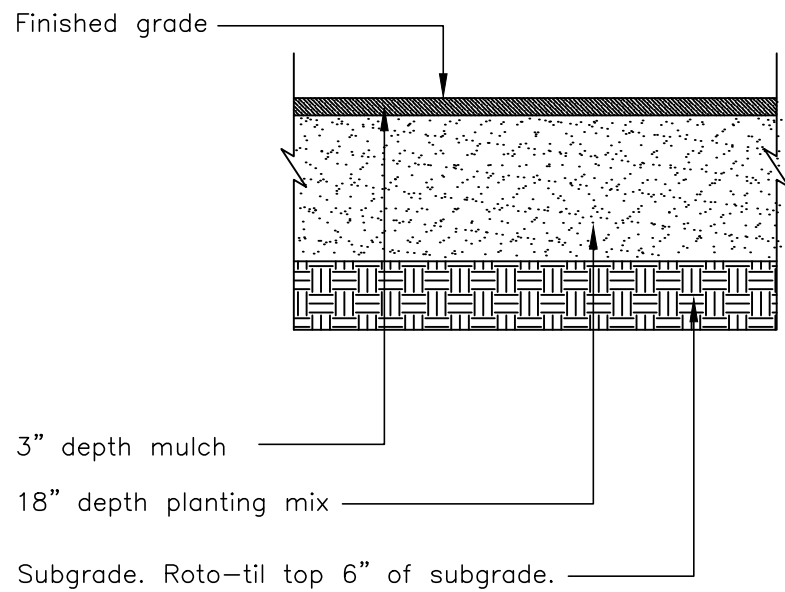
Rootball Setting
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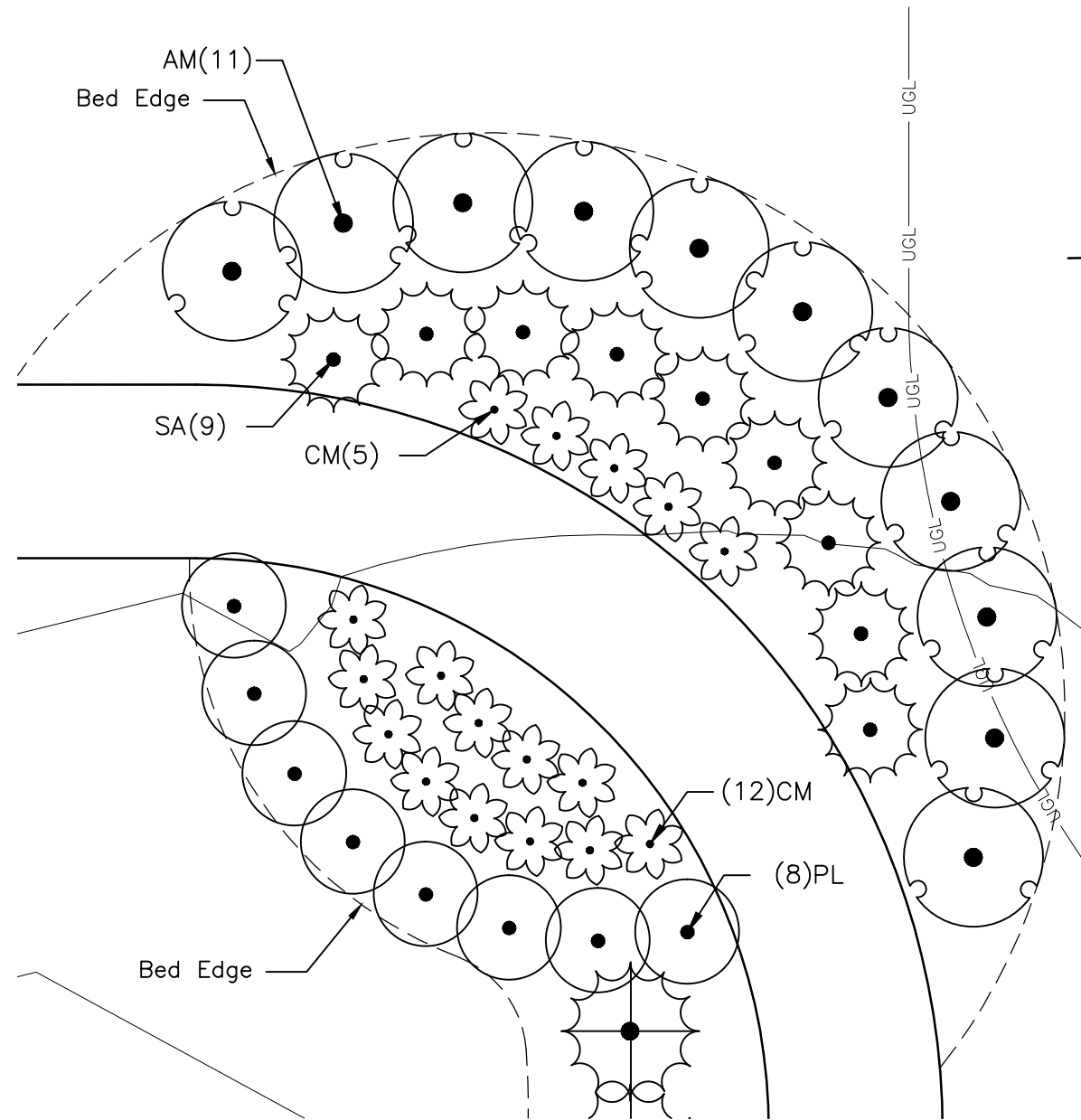
Shrub Planting
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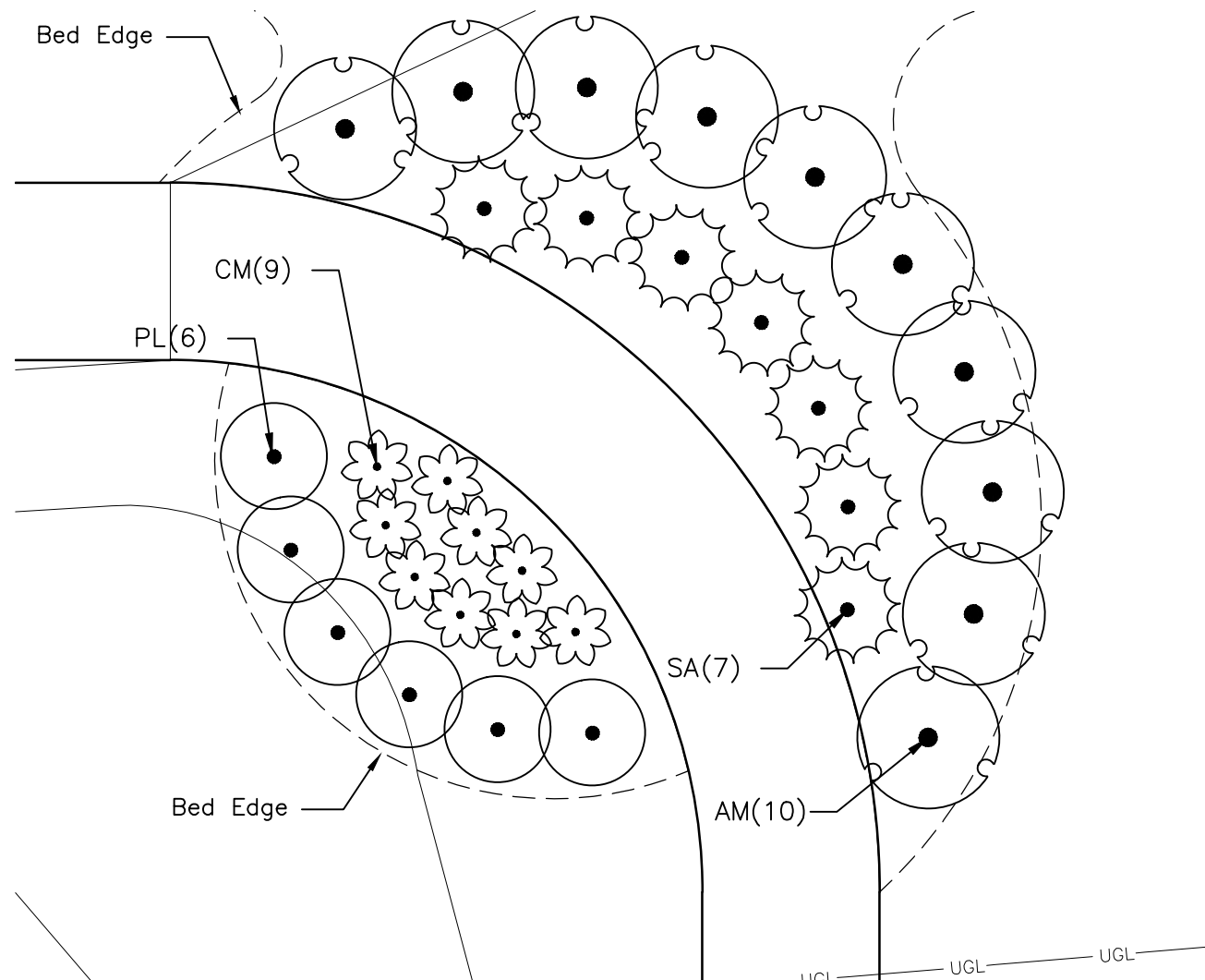
Planting Bed Edge
No Scale



Planting Area Establishment
No Scale



West Planting Bed Enlargement
1 inch=5 feet



Southeast Planting Bed Enlargement
1 inch=5 feet

PLANT SCHEDULE WEST PLANTING BED

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION
AM	11	Aronia melanocarpa 'Autumn Magic'	Autumn Magic Black Chokeberry	#5	Cont.
PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION
CM	17	Coreopsis verticillata 'Moonbeam'	Moonbeam Coreopsis	#2	Cont.
PL	8	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage	#2	Cont.
SA	9	Rudbeckia hirta	Black-eyed Susan	#2	Cont.

PLANT SCHEDULE SOUTHEAST PLANTING BED

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION
AM	10	Aronia melanocarpa 'Autumn Magic'	Autumn Magic Black Chokeberry	#5	Cont.
PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION
CM	9	Coreopsis verticillata 'Moonbeam'	Moonbeam Coreopsis	#2	Cont.
PL	6	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage	#2	Cont.
SA	7	Rudbeckia hirta	Black-eyed Susan	#2	Cont.

GENERAL NOTES

- Prior to installation, the landscape contractor shall inspect the general site conditions and verify the subgrade, elevations, utility locations and topsoil provided by general contractor. The landscape contractor shall notify the general contractor of any unsatisfactory conditions and work shall not proceed until such conditions have been corrected and are acceptable to the landscape contractor.
- All plants shall meet or exceed standards set in the American Standard for Nursery Stock, ANSI Z60.1, 2004. All plants shall equal or exceed the measurements and sizes specified in the schedule.
- All planting operations shall adhere to American Nursery & Landscape Association standards unless noted otherwise.
- Substitutions shall be permitted with notification and written approval from the Owner. Substituted material shall be equivalent or greater in size than the specified plant. Substituted plants shall have the same essential characteristics and growth habit of the specified plant.
- Confirm location of all utilities and subsurface drain lines prior to plant installation.
- Contractor may slightly field adjust plant locations as necessary to avoid utilities. Finished planting beds shall be graded to provide positive drainage.
- Contractor shall repair all lawn areas disturbed during construction with seed and warrant a healthy, weed free lawn prior to project acceptance.
- Seed all areas within contract limits that are not covered by paving, buildings or planting beds unless otherwise noted. Seeding shall not begin until area has received topsoil and finished grade.
- Mulch planting beds with shredded hardwood mulch of uniform dark brown color. It shall be free of twigs, leaves, disease, pest or other material unsightly or injurious to plants. Average applied thickness shall be 3" depth. Mulch hedges in a continuous bed.
- Planting beds shall be covered with pre-emergent herbicide applied at product specified rate unless otherwise noted.
- Bed edge shall be smooth, consistent, hand trenched 6" deep and "V" shaped unless otherwise noted. All excavated material shall be removed from the bed edge and planting bed.
- All planting bed edges to be smooth flowing arcs or straight lines as shown on plan. Plant locations and layout of beds shall be located by Contractor and approved by Landscape Architect prior to planting.
- Parking lot and street trees shall have a clear canopy height of 6' min.
- Tree shall be placed a minimum of 3' from sidewalks and curbs.
- Planting Mix shall be blended, manufactured soil and consisting of three (3) parts topsoil, one (1) part compost, one (1) part sand. Topsoil shall be ASTM D5268, pH range of 5.5 to 7, min. 4 percent organic material, free of stones and soil clumps 3/4 inch and larger. Compost shall be yard waste compost from an EPA rated Class IV compost facility or Com-til compost from City of Columbus Department of Public Utilities. Sand shall be clean, sharp, natural sand meeting the requirements of ASTM C33 for fine aggregate. Fineness Modulus (FM) shall be 2.5 to 3.1. Coefficient of Uniformity shall be 2.5 to 3.5 preferred (<4.1 acceptable). A proprietary manufactured Planting Mix such as Kurtz Bros. Professional Blend or Jones SuperSoil may be used. Submit test product data for review by Owner. Place Planting Mix in settled 6 inch lifts. Mix Mycorrhizal Fungi into Planting Mix during placement of Planting Mix. Application rate shall be according to manufacturer's written recommendations. Mycorrhizal Fungi shall be a dry, granular inoculant containing at least 5300 spores per lb (0.45 kg) of vesicular-arbuscular mycorrhizal fungi and 95 million spores per lb (0.45 kg) of ectomycorrhizal fungi, 33 percent hydragel, and a maximum of 5.5 percent inert material.
- Roto-Til subgrade below Planting Mix to a depth of 6 inches prior to placement of Planting Mix.
- Planting beds, including mulch, shall be no higher than 6 inches above adjacent grade.
- Lawn areas to be backfilled with topsoil to a minimum settled thickness of 6 inches.
- All trees, shrubs, groundcover, and lawns to be fertilized with a commercial grade fertilizer consisting of fast and slow release nitrogen.
- Composition and application rate of fertilizer shall be sufficient to amend soil according to recommendations of a qualified soil testing agency. Submit test results and amendment recommendations to Landscape Architect. Fertilizer shall be in a dry granular form for lawns and granular or tablet form for plants.
- Contractor to determine plant list quantities from the plan. Graphic representation on plan supersedes in case of discrepancy with quantities on schedule.
- Any item or areas damaged during construction shall be repaired or replaced to its original condition at the contractor expense.
- Contractor shall thoroughly water all plants at time of installation and as needed until project acceptance by Owner.
- Contractor shall provide temporary tree watering bags for all trees. Single or double bags may be provided. Minimum total bag capacity per tree shall be 20 gallons. Refill bags at least once every 7 days during the growing season. Maintain, adjust and refill bags for 1 year from date of project acceptance by Owner. Remove bags temporarily from from December 1 to April 1. Remove bags permanently 1 year from date of project acceptance by Owner.
- Contractor shall warranty all plants installed for one full year from date of project acceptance by the Owner. All plants shall be alive, disease free and at a vigorous rate of growth at the end of the warranty period.

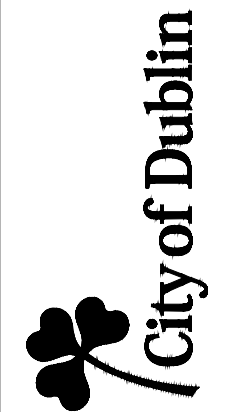
LANDSCAPE MAINTNENCE NOTES

- Fertilization: All fertilizer applications shall be based on soil testing. Take soil tests in the fall, consisting of composite sample, of at least three core borings, for each lawn and shrub bed area. Borings shall be taken to a 6 inch depth. Test for nitrates, phosphorous, potassium, calcium, magnesium, and organic matter content. Base fertilizer blends on soil test results. Perform soil test every year. DO NOT FERTILIZE BIORETENTION BASINS PLANTINGS OR LAWNS ON SIDE SLOPES WHICH DRAIN INTO BIORETENTION BASINS.
- Pruning: Prune nursery planted trees shown on this plan according to ANSI A300 Pruning Standard - Part 1. Do not prune existing trees except to remove broken or damaged branches. Prune deciduous trees once a year in dormant winter season to remove dead low hanging branches and improve form on trees, as needed. Ornamental trees are to be pruned the immediate month after blooming is completed. Thin out evergreen trees and shape when necessary to prevent wind and storm damage. Prune shrubs to maintain a loose, unclogged hedge with a height of 3 to 4 feet. Allow individual shrubs to grow together to form a hedge.
- Pest control: Monitor lawn, trees and shrubs for pests and disease on routine basis. If problems are noticed, notify Owner of problems and recommended treatment, and proceed upon approval. Use State of Ohio accepted Integrated Pest Management (IPM) principles. Comply with Ohio Revised Code 901: 5-11-14 Integrated Pest Management Standard.
- Mulching: Soils in all landscape bed areas shall be kept covered with organic, shredded bark mulch. Inspect mulch in landscape beds twice a year, in mid to late fall and late spring. Add sufficient depth of bark mulch to maintain 2 to 3 inches of mulch depth. Rake mulch beds to mix and smooth new mulch and old. Keep mulch 3" away from the trunk of trees.
- Mowing: Mowing interval shall be based on grass height to be maintained. Mow to a minimum height of 2 1/2 inches in spring and fall and 3 inches in the summer. Do not mow-off more than one third of the grass leaf height at each mowing. Do not mow when raining or when grass is wet. DO NOT MOW SODDED AREA OF BIORETENTION BASIN AFTER SOD ESTABLISHMENT.
- Edging: Turf shall be trimmed with a string trimmer at edges of pavements, curbs, around planting beds, tree rings, light fixtures and signs. Do not use power trimmer around the base of trees or shrubs. Annually during the spring re-cut bed edges per Planting Bed Edge detail.

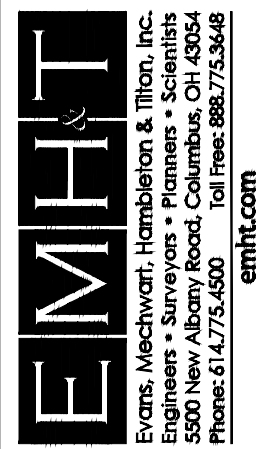
PRELIMINARY
NOT TO BE USED FOR
CONSTRUCTION

PLAN SET DATE
March 3, 2015

REVISIONS		
MARK	DATE	DESCRIPTION



CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
LANDSCAPE DETAILS



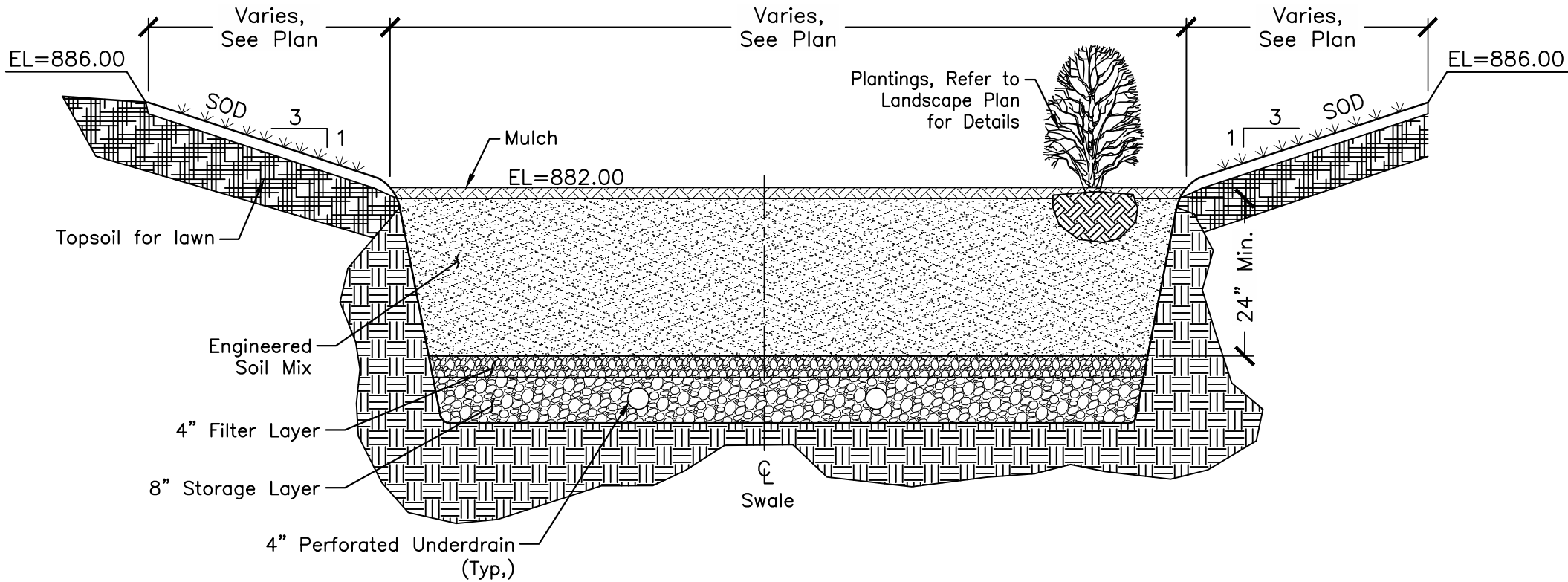
DATE
March 3, 2015

SCALE
As Noted

JOB NO.
2014-0588

SHEET
12/14

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BIORETENTION BASIN DETAIL
No Scale

BIORETENTION BASIN MAINTENANCE SCHEDULE	
ACTIVITY	SCHEDULE
Water plants	As necessary during first growing season
Prune and weed plants for appearance	As needed
Inspect & replace poorly suited or diseased plants	As needed
Check for erosion or deposition in pretreatment and bioretention areas; Clean out and repair damage areas	Semi-Annually
Inspect facility for salt damage	Monthly
Remove litter and debris	Monthly
Add and/or replace mulch	Annually
Test soil and adjust as necessary to maintain in 5.2–8.0 pH range	Biannually
Check planting soil and filter layer for clogging, replacing portions as necessary	2–10 years/As needed
The maintenance operations are the suggested minimum maintenance activities per Chapter 2–Post Construction Stormwater Management Practices in the 2006 (updated 3/3/2014) Rainwater and Land Development Manual per the Ohio Department of Natural Resources.	

PRELIMINARY
NOT TO BE USED FOR
CONSTRUCTION

PLAN SET DATE
March 3, 2015

STORM DRAINAGE BIORETENTION BASINS NOTES

SUBMITTALS

- Submit Product Data and Test Results for each of the following manufactured products required: Mulch, Sand, Organic Amendment, Topsoil, Engineered Soil Mix, Aggregate, Perforated-wall and solid-wall pipe.
- Submit Samples for Verification at least 45 days prior to anticipated date of installation. Submit samples for the following products, in sizes indicated: Mulch, 1 gallon; Sand, 1 gallon; Organic Amendment, 1 gallon; Topsoil, 1 gallon; Engineered Soil Mix, 5 gallons; Perforated-wall and solid-wall pipe, 24 inch lengths.
- Submit Qualification Data. Include list of similar bioretention basin or rain garden projects completed by installer demonstrating Installer's capabilities and experience. Include project names, addresses, and year completed, and include names and addresses of owners' contact persons. Provide qualification data for the bioretention excavator and installer, landscape installer and engineered soil mix manufacturer. Submit Qualification Data for Soil-Testing Laboratory. Laboratory shall be an independent or university laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
- Submit Material Test Reports. For each bioretention soil component specified, provide test data as indicated in Section 2. Submit reports at least 45 days prior to anticipated date of installation.
- Submit Pre-excavation Photographs or Videotape. Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by construction operations. Submit before excavation begins.
- Contractor shall conduct a Preconstruction Conference at project site prior to excavation and construction of bioretention basins.

PROJECT CONDITIONS

- Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth moving operations. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
- Notify utility locator service for area where Project is located before beginning earth moving operations.
- Do not commence construction of bioretention basins until temporary erosion and sedimentation control measures are in place. All site areas tributary to the bioretention basin shall be sufficiently stabilized so that sediment will not enter the bioretention basin.
- Proceed with construction only when existing and forecasted weather conditions permit excavation to be performed when beneficial and optimum results may be obtained.
- Suspend construction during periods of rainfall and snowmelt. Construction shall remain suspended if ponded water is present or if residual soil moisture may cause soil smearing, clumping or other forms of compaction. NO DELAY CLAIM MAY BE MADE DUE TO SUSPENSION OF BIORETENTION CONSTRUCTION DUE TO UNFAVORABLE SOIL MOISTURE CONDITIONS.
- Construction shall begin no earlier than March 1st and be completed by October 1st.

COMPONENTS OF ENGINEERED SOIL MIX

- Organic Mulch shall be triple processed, mechanically chipped, shredded, hammered or ground raw wood material from hard timber. Mulch shall be free of mold, dirt, sawdust, and foreign and deleterious material and shall not be in an advanced state of decomposition. Mulch shall not contain chipped or shredded manufactured boards or chemically treated wood, including but not limited to wafer board, particleboard, and chromated copper arsenate (CCA) or penta treated wood. Color: Natural, undyed; Size Range: 3 inches maximum, 1/2 inch minimum; pH: 5.5 to 7.2; Salinity: less than 3.0 millimhos per cm (mS / cm); Carbon:Nitrogen Ratio: less than 36:1
- Sand for Engineered Soil Mix shall be clean, sharp, natural sand meeting the requirements of ASTM C33 for fine aggregate. Fineness Modulus (FM) shall be 2.5 to 3.1. Coefficient of Uniformity shall be 2.5 to 3.5 preferred (<4.1 acceptable).
- Submit proposed sand to project Engineer or Landscape Architect for approval prior to final mixing and shipment to project site. Furnish laboratory analysis and a written report, less than six months old, by a qualified testing laboratory stating compliance with the above parameters. Submit analysis and report at least 45 days prior to anticipated date of installation.
- Organic Amendment shall be mature/stable aerobically composted yard debris (green waste) compost, an animal manure compost, a biosolids compost or a compost derived from a combination of these three feedstocks. pH: 5.5 to 8.0 (ASTM D2976); Salinity: less than 6.0 millimhos per cm (mS / cm); Organic Matter: not less than 35% by weight (ASTM D2974); Carbon:Nitrogen Ratio: less than 36:1
- The compost shall meet all applicable state regulations based on the feedstock type or U.S. EPA 503 Regulations for biosolids compost.
- Leaf humus compost, "peat", "peat-humus" or sphagnum peat moss products are not acceptable.
- Submit proposed organic amendment to project Engineer or Landscape Architect for approval prior to final mixing and shipment to project site. Furnish laboratory analysis and a written report, less than six months old, by a qualified testing laboratory stating compliance with the above parameters. Submit analysis and report at least 45 days prior to anticipated date of installation.
- Topsoil shall be a loamy, friable soil essentially free from heavy or stiff clay lumps, stones, cinders, concrete, brick, roots, sticks brush, litter, plastics, metals, refuse or other deleterious materials in accordance with ASTM D 5268. The soil shall be free of herbicides, petroleum-based materials or other substances of a hazardous or toxic nature which may inhibit plant growth. The soil shall be free of noxious weeds, seeds or vegetative parts of weedy plants that cannot be selectively controlled in the planting. pH: 5.5 to 7.5 (ASTM D4972); Salinity: less than 1.5 millimhos per cm (mS / cm); Organic Matter: 3 to 8% by weight (ASTM F1647).
- Soil shall be taken from a well-drained site and have a USDA soil texture classification of a Clay Loam or Loam. Existing topsoil at the site may be used provided it meets the requirements of this section for topsoils. Off-site (borrow) topsoils may be used provided they meet the requirements of this section and their source or location is submitted to and approved by the Engineer or Landscape Architect.
- Submit proposed topsoil to project Engineer or Landscape Architect for approval prior to final mixing and shipment to project site. Furnish laboratory analysis and a written report, less than six months old, by a qualified testing laboratory stating compliance with the above parameters. Submit analysis and report at least 45 days prior to anticipated date of installation.

ENGINEERED SOIL MIX

- Mix Sand, Organic Amendment and Topsoil components by volume, to obtain Engineered Soil Mix meeting these specified requirements: pH: 5.5 – 7.5 (ASTM D4972); Salinity: less than 0.8 millimhos per cm (mS / cm); Organic Matter: 2 – 10% by weight (ASTM F1647); Phosphorus: Not to exceed 69 mg / kg; Cation Exchange Capacity (CEC): Minimum of 10; Infiltration Rate: 4 to 12 inches per hour (with soil compacted sample to 85% standard proctor), as determined by ASTM F1615 or ASTM D5856. Mixing shall be performed off-site and engineered soil mix shall be delivered to the site pre-mixed at time of installation.
- Submit proposed mix to project Engineer or Landscape Architect for approval prior to final mixing and shipment to project site. Report percentage by volume of Sand, Organic Amendment and Topsoil. Furnish laboratory analysis and a written report, less than 30 days old at time of submittal, prepared by a qualified testing laboratory stating compliance with the above parameters. Submit analysis and report at least 45 days prior to anticipated date of installation.

MATERIALS FOR BIORETENTION BASINS

- Filter Layer shall be a narrowly graded mixture of washed, crushed stone, or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 8; with 100 percent passing a 1/2-inch (12.5-mm) sieve and 0 to 5 percent passing a No. 16 (1.18-mm) sieve.
- Storage Layer shall be a narrowly graded mixture of washed, crushed stone, or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch (37.5-mm) sieve and 0 to 5 percent passing a No. 8 (2.36-mm) sieve.
- Perforated subdrainage pipes and fittings shall be PVC Sewer Pipe ASTM D 2729, bell-and-spigot ends. Pipe shall have 2 rows of perforations 120 degrees apart or 3 rows of perforations 60 degrees apart. The perforation size shall be 1/2 inch to 5/8 inch diameter and perforation shall be spaced 3 inches to 5 inches per row. Solid Wall PVC Sewer Pipe and Fittings shall be ASTM D 3034 or ASTM D 2729, bell-and-spigot ends.

PREPARATION

- Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by excavation of bioretention basins.
- Protect and maintain erosion and sedimentation controls during bioretention basin installation. Remove accumulated sediment from excavation.
- Engineered Soil Mix shall be premixed with a moisture content low enough to prevent clumping and compaction during placement.
- Prior to beginning any construction activity the area of the bioretention basin shall be cordoned off to prevent compaction by heavy equipment. No materials may be stored in the bioretention area. No equipment may be operated in the bioretention area prior to commencement of excavation activity.

DEWATERING

- Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations.

EXCAVATION

- Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. Do not excessively disturb bottom of excavation and do not compact or smear bottom of excavation. Remove projecting stones and sharp objects along bottom of excavation.
- To prevent compaction within the limits of the bioretention basin only hand laborers, small excavation hoes with wide tracks, light equipment with turf tires, marsh equipment or wide-track loaders may be used.
- Excavate at edges of Tree- and Plant-Protection Zones by hand to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
- Notify Engineer or Landscape Architect for subgrade inspection when excavations have reached required subgrade. Do not proceed until subgrade condition has been approved.
- Re-fracture subgrade soils that have been compacted or smeared by raking, disking or tilling to a minimum depth of 12 inches.

PLACEMENT OF SAND INTERFACE LAYER

- Place 3 inches of sand over bottom of excavation and incorporate into existing soil by coarsely tilling to depth of 6 inches. Place by hand dumping, with small equipment or equipment capable of reaching basin from a distance so as not to compact basin bottom.
- Grade Sand Interface Layer to cross sections, lines, and elevations indicated.

PLACEMENT OF AGGREGATE AND SUBDRAINAGE

- Place Aggregate Storage Layer in layers not more than 6 inches in loose depth. Place by hand dumping, with small equipment or equipment capable of reaching basin from a distance so as not to compact basin bottom.
- Excavate trench for Subdrainage Pipe in Storage Layer to line and grade indicated. Place Subdrainage Pipe in trench with perforations downward. Encase Subdrainage Pipe in a minimum of 4 inches of Filter Layer material on top and sides.
- Do not overly compact Storage Layer.
- Grade Storage Layer to cross sections, lines, and elevations indicated.
- Connect Subdrainage Pipe to storm sewer structures as indicated on drawings.
- Construct cleanouts of PVC pipe to length indicated on plan. Place cleanout vertically at locations indicated on plan. Install removable, threaded, waterproof cap on top of cleanout riser pipe flush with top of Mulch Layer.

PLACEMENT OF ENGINEERED SOIL MIX

- Place Engineered Soil Mix in layers not more than 12 inches in loose depth. Place by hand or with small equipment. If using small equipment, refracture soils that have been compacted by raking, disking or tilling to a minimum depth of 4 inches.
- Settling of soil by walking on surface and working with hand equipment is acceptable. Do not use vibrating plate-style compactors to induce settling.
- Uniformly grade Engineered Soil Mix to a smooth, settled surface, free of irregular surface changes. Do not overly work or compact Engineered Soil Mix. Grade to cross sections, lines, and elevations indicated.

PLACEMENT OF MULCH LAYER AND PLANTING

- Place mulch prior to installation of plants. Place mulch to an average depth of 3 inches in loose depth. Place by hand taking care not to overly compact Engineered Soil Mix.
- Water Mulch Layer immediately after placement with a fine spray to settle and interlock mulch. Continue watering until mulch layer is moist to a minimum depth of 2 inches.
- Install plants in Mulch Layer and sod on side slopes per landscape drawings and specifications.

FIELD QUALITY CONTROL

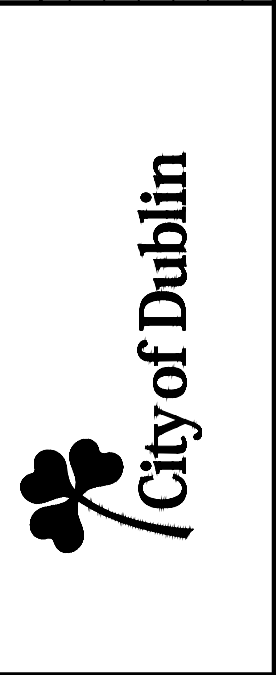
- Contractor shall engage a qualified special inspector to perform the following special inspections:
 - Confirm that site areas tributary to the bioretention basin are stabilized
 - Confirm the removal of accumulated sediment from basin
 - Confirm the correct installation of the sand interface layer
 - Confirm the correct installation of the storage layer and filter layers
 - Confirm the correct installation of subdrainage, cleanouts and/or observation ports
 - Confirm the correct installation of engineered soil mix and grading
 - Confirm the correct installation of the mulch layer
 - Confirm the correct installation of the plantings and sod
 - Confirm that side slopes of basin and tributary areas are stabilized and that no sediment from unstabilized areas is entering the basin.
- Prepare and submit an inspection report including: written descriptions of the work; dates and times of work performed; errors in execution of the work and remedial actions taken; and dated digital photographs documenting each item above. Submit report to Engineer or Landscape Architect.
- Protect basins from traffic and erosion. Keep free of trash and debris.
- Repair and reestablish basin where completed or partially completed work becomes eroded. Restore appearance, quality, and condition of finished basin to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

- Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

MAINTENANCE

- Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established but for not less than the period of establishment and the Contract.
- Maintain by pruning plants, watering, weeding, fertilizing, mulching, resetting to proper grades, repairing erosion and performing other operations as required to establish healthy, viable plantings. Spray or treat as required to keep plants free of insects and disease.
- Water plants per ODOT Construction and Material Specification Item 662.
- Fill in as necessary soil subsidence that may occur because of settling, erosion or other processes. Replace mulch materials damaged or lost in areas of subsidence or erosion.
- Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps, and biological control agents.

REVISIONS	
MARK	DESCRIPTION



CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
BIORETENTION NOTES

DATE	
March 3, 2015	
SCALE	
None	
JOB NO.	
2014-0588	
SHEET	
13/14	

EMHIT
Evans, Mechwart, Hamblen & Iton, Inc.
1000 North Albany Road, Columbus, OH 43254
Phone: 614.775.4500 Toll Free: 888.775.3448
emhit.com

STREET LIGHTING NOTES

PLAN AND SPECIFICATION COMPLIANCE

These specifications, together with the accompanying plans, are to describe the type, size, and location of the products and material to be provided and installed under various bid items related to Street Lighting. The Contractor shall furnish and install Street Lighting items and related material in compliance with these plans and specifications, as well as the current Ohio Department of Transportation Construction and Material Specifications, and the City of Dublin Standard Detail drawings for Street Lighting. Street Lighting plans shall meet or exceed the standards specified. In case of a conflicting specification statement, the specification document hierarchy shall be in the order listed from (A) highest to (C) lowest.

- (A) Specifications listed in this plan
(B) City of Dublin Street Lighting Standard Drawings and Specifications
(C) ODOT Construction and Material Specificaitons

ITEM 625 – LIGHT POLE, AS PER PLAN

Light pole shall conform with City of Dublin Standard Drawing SL-03, except that it shall allow for a 20' luminaire mounting height from top of fixture to grade. The pole shall be furnished with an approved handhole, 12' from grade to center of handhole, to allow for access to interior surveillance camera cables. The Contractor shall coordinate with the pole manufacturer and COTA to ensure that the pole can accommodate a future pole mounted, COTA approved surveillance camera. Light pole structures shall be designed and constructed by the supplier to support the loads that the plan requires the Contractor to install. The use of standard design designations and any details provided in this plan are intended to promote uniformity of design and are not warranted to be structurally adequate. The Contractor shall verify the anchor bolt circle, anchor bolt diameter, and orientation pattern with the light pole manufacturer. The manufacturer shall be responsible for verifying the pole design, and shall prepare shop drawings and structural design calculations stamped by an Ohio Professional Engineer. The shop drawings and calculations shall be submitted to the City of Dublin for approval prior to fabrication.

Payment shall be as per Item 625.

ITEM 625 – POWER SERVICE, AS PER PLAN

Power Service shall be as per Item 625, the power service schematic diagram shown on this sheet, and the City of Dublin Standard Drawing SL-13.

Provide an Arc Flash Hazard Warning sign on the outside front door of the enclosure in accordance with the current National Electrical Code paragraph 110.16.

Provide an Available Fault Current sign on the outside of the front door of the service disconnect enclosure in accordance with the current National Electrical Code paragraph 110.24.

Payment shall be as per Item 625.

GROUNDING AND BONDING

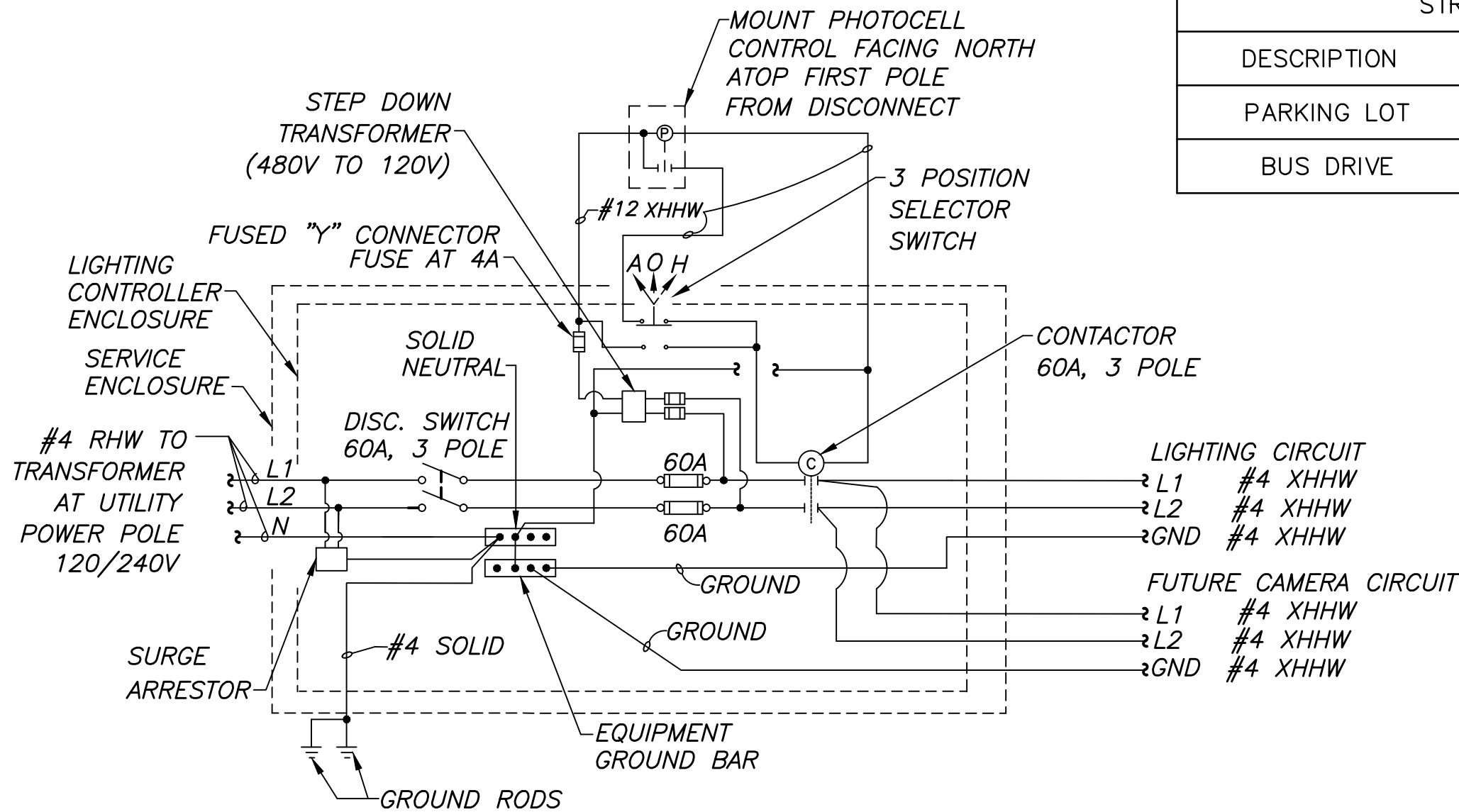
The requirements of the State of Ohio Department of Transportation Construction and Material Specifications (C&MS) and the HL series of Standard Construction Drawings are modified as follows:

- All metallic parts containing electrical conductors shall be permanently joined to form an Effective Ground Fault Current Path back to the grounded conductor in the power service disconnect switch.
 - Provide an equipment grounding conductor in metallic conduits (725.04) in addition to the conductors specified and bond the conduit to this grounding conductor.
 - When an equipment grounding conductor is required in plastic conduit (725.05), the installation shall include a separate equipment grounding conductor in addition to the conductors specified.
 - Metal pull box lids shall be bonded by attachment of the equipment grounding conductor to the frame diagonal as provided on HL-30.11.
- Conduits
 - The 725.04 conduit shall have grounding bushings installed at all termination points. The bushing material shall be compatible with galvanized steel conduit and the grounding lug material shall be compatible for use with copper wire. Threaded or compression type bushings may be used.
 - The 725.05 conduit shall have the inside and outside diameters of the conduit deburred at all termination points.
 - Both ends of metallic conduit shall be bonded to the equipment grounding conductor.
 - Metallic conduit may be bonded to metallic boxes through the use of conduit fittings UL approved for this type of connection, with the box bonded to the equipment grounding conductor.
- Wire for Grounding and Bonding
 - Use insulated, copper wire for the equipment grounding conductor. Bonding jumpers in boxes and enclosures may be bare or insulated copper wire. Wire size shall be as follows: The insulation shall be green or green with yellow stripe(s). For 4 AWG or larger, insulation may also be black with green tape/labels installed at all access points.
 - In a highway lighting system, the equipment grounding conductor shall be the same wire size as the duct cable or distribution cable circuit conductors, with the minimum conductor size of 4 AWG. Bonding jumpers will be minimum size 4 AWG.
- Ground Rod
 - A 3/4 inch Schedule 40 PVC conduit will be used in foundations and concrete walls for the grounding conductor (ground wire) raceway to the ground rod. Should metallic conduit be used, both ends of the conduit shall be bonded to the grounding conductor.
 - The typical grounding conductor (ground wire) shall be 4 AWG insulated, copper.
- Power Service and Disconnect Switch
 - At the power service location, the grounding conductor (ground wire) from the disconnect switch neutral (AC-) bar to the ground rod shall be a continuous, unspliced conductor. If spliced, it shall be an exothermic weld butt splice.
 - The service neutral shall only be connected to ground at the primary power service disconnect switch.

STREET LIGHTING PHOTOMETRIC RESULTS					
DESCRIPTION	AVE	MAX	MIN	MAX/MIN	AVE/MIN
PARKING LOT	1.9 fc	4.1 fc	0.5 fc	8.2:1	3.8:1
BUS DRIVE	2.0 fc	4.0 fc	0.6 fc	6.7:1	3.3:1

LEGEND

- LIGHT POLE (SL-03, 20')
W/ (1)-LUMINAIRE (SL-01), ARE-EDG-2M-DA-06-E-UL-BZ-525-40K
- LIGHT POLE (SL-03, 20')
W/ (2)-LUMINAIRES (SL-01), ARE-EDG-5M-DA-06-E-UL-BZ-525-40K
- UGL — 3" SCH 40 CONDUIT W/ (3)-#4 AWG, 600V LIGHTING CABLES
IN TRENCH (INCLUDE 6" SCH. 80 SLEEVE FOR 3" CONDUITS UNDER STREET PAVEMENT)
- C — 3" SCH 40 CONDUIT, EMPTY FOR FUTURE CAMERA DISTRIBUTION CABLES
3" SCH 40 CONDUIT, EMPTY FOR FUTURE CAMERA DATA CABLES
IN TRENCH (INCLUDE 6" SCH. 80 SLEEVE FOR 3" CONDUITS UNDER STREET PAVEMENT)
- PAD MOUNTED LIGHTING CONTROLLER (SL-13)
- PULL BOX, 725.06, POLYMER CONCRETE, 24"
- EX. LIGHT POLE (TO REMAIN UNLESS OTHERWISE NOTED)
- UGL — EX. UNDERGROUND STREET LIGHTING (TO REMAIN)
- R&R REMOVE AND RELOCATE



POWER SERVICE SCHEMATIC DIAGRAM

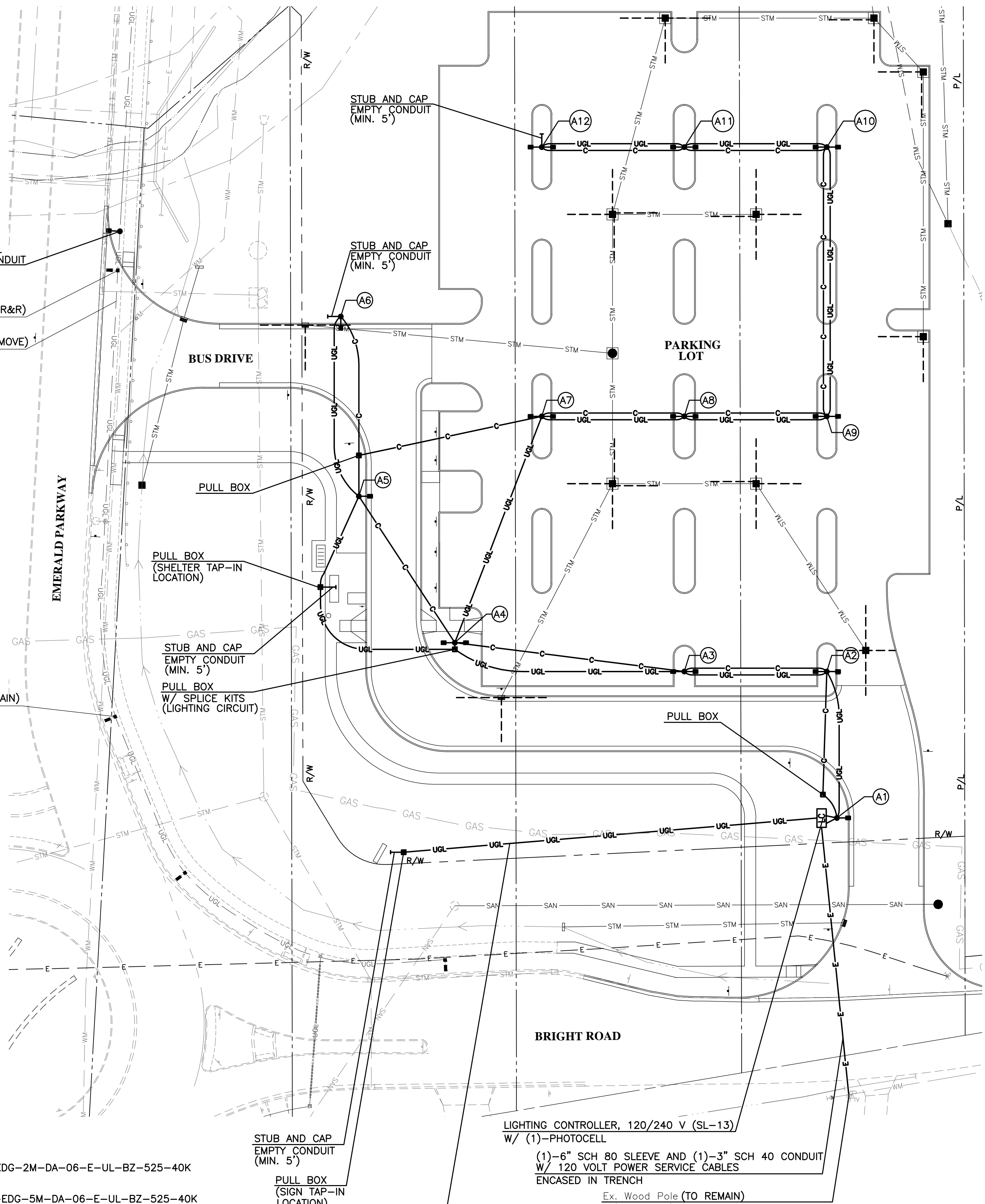
SCALE: NONE

NEW LIGHT POLE LOCATION SHALL
INTERCEPT EXISTING LIGHTING CONDUIT
W/ (1)-NEW FOUNDATION
(POLE TO BE WIRED)

Ex. Light Pole/Luminaire(R&R)
(REMOVE FOUNDATION)

Ex. Lighting Conduit/Cables (REMOVE)

Ex. Light Pole/Luminaire(REMAIN)
(POLE TO BE WIRED)



LIGHTING CONTROLLER, 120/240 V (SL-13)
W/ (1)-PHOTOCELL

(1)-6" SCH 80 SLEEVE AND (1)-3" SCH 40 CONDUIT
W/ 120 VOLT POWER SERVICE CABLES
ENCASED IN TRENCH

Ex. Wood Pole (TO REMAIN)
w/ Ex. 120/240 AEP Transformer
W/ (1)-2" CONDUIT RISER, SCH 80

NOTE TO REVIEWER: POWER SOURCE
CURRENTLY UNDER INVESTIGATION

William C. Mess, Date
For Power Distribution and Grounding Only.
This Sheet Only

REVISIONS

MARK	DATE	DESCRIPTION

CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PRIVATE SITE IMPROVEMENT PLAN
FOR
COTA PARK AND RIDE
LIGHTING PLAN

EMHT
Evans, Meacham, Hensler & Thon, Inc.
5900 New Albany Road, Columbus, OH 43254
Phone 614.775.4500 Toll Free 888.775.3448
emht.com

DATE
January 15, 2015

SCALE
1" = 30'

JOB NO.
2014-0588

SHEET
14/14